Residential Gateway

User's Guide (RG3000)

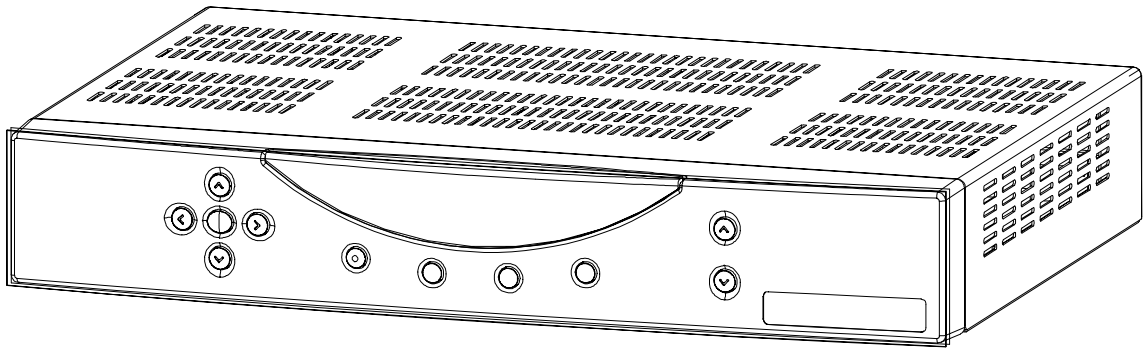

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TABLE OF CONTENTS

IMPORTANT SAFEGUARDS 5
Safety 6
Repairs 6
INTRODUCTION 7
About This Manual 7
What Your Network Service Provider Does 8
GETTING STARTED 9
Using Your RG3000 9
AC Outlet 10
Using Your Remote Control 11
Caller ID/Message Waiting 13
Using Pay-Per-View 14
Access Parental Control 14
Closed Captioning 15
Recording Your Favorite Programs 15
Cancelling Your Recording 16
Programming Your VCR Code (Optional) 16
ADVANCED USE 17
Changing or Programming Settings 17
Determine the remote control Operating Mode 17
Set the remote control Operating Mode 17
Determining the Gateway ID 18
Setting the Gateway ID 19
Determining the Remote Control ID 20
Setting the Remote Control ID 20
Programming the TV Code 20
Programming the TV Code Using Code Search Method 21
Verifying the TV Codes 21
Verifying and Setting Other Features 22
Accessing the TV Setup Menu 22
Verifying the TV (RF) Setting 22
Secondary Audio: Specifying A Preferred Language 23
Display Language 24
EADS (Emergency Alert Device Support) 24
Aspect Ratio 25
HD Component Output Resolution 26
HD Component Output 4:3 Override 26
Closed Caption Display Settings 26
CONFIGURATION EXAMPLES 29
Connections 30
TROUBLESHOOTING 37
Possible Causes and Solutions 37
Contacting Your Network Service Provider for Help 38
TV AND VCR CODES 39
TV Codes - SRC 300 39
VCR Codes 41
SPECIFICATIONS 43
Certifications 43
FCC Statement of Compliance 44
INDEX 45

IMPORTANT SAFEGUARDS

READ INSTRUCTIONS – All the safety and operating instructions should be read before the product is operated.

RETAIN INSTRUCTIONS – The safety and operating instructions should be retained for future reference.

HEED WARNINGS – All warnings on the product and in the operating instructions should be adhered to.

CLEANING – Do not use liquid or aerosol cleaners to dust this product. Use a cloth lightly dampened with water for cleaning.

ATTACHMENTS – Do not use attachments that are not recommended as they may cause a hazard.

WARNING – To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious personal injury and serious damage to the product. Use only with a cart, stand or table recommended by the manufacturer or sold with the product. Follow the manufacturer's instructions when installing the product and use mounting accessories recommended by the manufacturer. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

VENTILATION – Slots and openings in the product housing are provided for ventilation, to ensure reliable operation of the product, and to protect it from overheating the following should be observed:

- Openings should never be blocked by placing the product on a bed, sofa, rug, or similar surface.
- Do not stack other equipment on top of the RG3000.
- Maintain at least 2 inches of free space above the RG3000.
- Do not install near heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.

- POWER SOURCES – This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your local power company. For equipment intended to operate from battery power or other sources, refer to the operating instructions.
- GROUND OR POLARIZATION – This product may be equipped with a polarized alternating current line plug (a plug having one blade larger than the other). This plug will fit into the power outlet in only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit into the outlet, contact an electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
- POWER CORD PROTECTION – Power cords should be routed so they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where the plugs exit from the product.
- POWER SOCKET OUTLET – Use a power socket outlet located near the equipment that is easily accessible.
- LIGHTNING – For added protection for this product during a lightning storm, or when it is left unattended, unplug it from the wall outlet. This will prevent damage to the video product due to lightning and power line surges.
- OVERLOADING – Do not overload wall outlets and extension cords, as this can result in a risk of fire or electrical shock.

- OBJECT AND LIQUID ENTRY – Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electrical shock. Never spill liquid of any kind on the product.
- SERVICING – Do not attempt to service this equipment yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
- DAMAGE REQUIRING SERVICE – Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - When the power supply cord or plug is damaged
  - If liquid has been spilled or objects have fallen into the equipment
  - If the product does not operate normally by following the operating instructions
  - If the product has been dropped or the housing has been damaged
  - When the product exhibits a distinct change in performance
- SAFETY CHECK – Upon completion of any service or repairs to the product, ask the service technician to perform safety checks to determine that the product is operating properly.

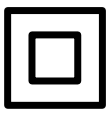
SAFETY

This section reviews important safety concepts for working with the optical and electrical equipment covered in this guide.

SAFETY ADVISORIES AND LABELS

Important warning notices, if any, are located on the back of the RG3000 about safety to people and equipment. Failure to observe these rules and similar danger, caution, or warning notices can result in serious personal injury, service interruption, and equipment damage.

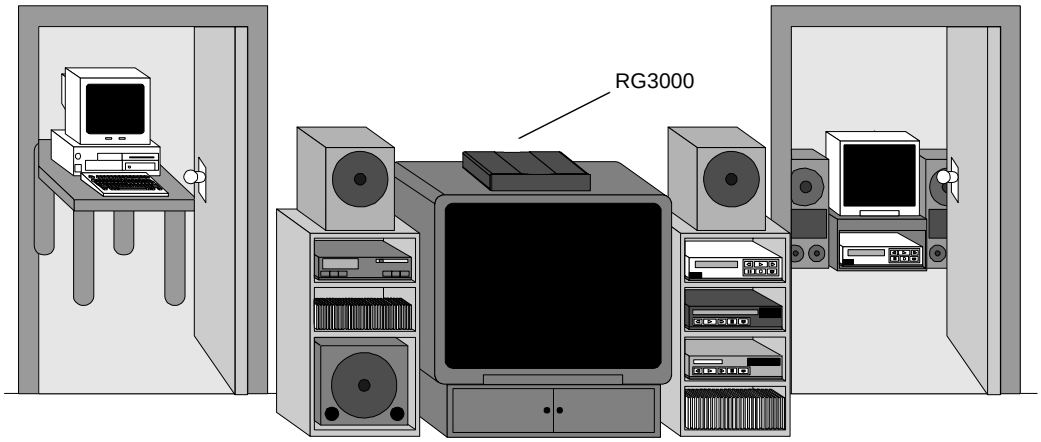
SYMBOLS

Symbol	Meaning
	Indicates “See instructions”.
	Indicates “Double Insulation”.
	Indicates “Use only with the cart, stand, bracket, tripod, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over”.

REPAIRS

If you find the unit in need of repair, contact your network service provider for repair or replacement. **WARNING! Disconnect unit before servicing.**

INTRODUCTION



Beneath the compact exterior of the RG3000 is a powerful media delivery system. The RG3000 is a single stream, VDSL settop capable of delivering HD (High Definition) television services[1]. The RG3000 provides high performance digital video and audio channels to the home (these services can include basic and premium video programming, Impulse Pay Per View, and music channels). Some units deliver sophisticated telephony services such as Caller ID and Message Waiting display.

ABOUT THIS MANUAL

The information in this manual is applicable to the RG3000C or RG3000V versions of the Residential Gateway RG3000. The term xDSL is a generic term, used in this manual to refer to VDSL technology.

GETTING STARTED on page 9 contains the information you use most frequently and helps you understand how the RG3000 works after your NSP (network service provider) has connected and programmed its functions. It also describes how to use the RG3000 remote control to access and control the basic features of the RG3000.

ADVANCED USE on page 17 provides more technical information about the RG3000 and gives instructions about how to set up and program your system.

CONFIGURATION EXAMPLES on page 29 illustrates possible component wiring configurations of the RG in your system to aid you if you want to move your equipment or connect additional equipment such as an entertainment center or a new VCR.

CONNECTING YOUR PC TO THE INTERNET on page 31 briefly explains connecting your PC to the Internet. Illustrations show configurations for setting up a LAN (local area network) in your home.

TROUBLESHOOTING on page 37 provides help for problem resolution.

1. To take advantage of Component video (HDTV) service, the RG3000 must be connected to a High Definition television and be receiving high definition broadcast.

WHAT YOUR NETWORK SERVICE PROVIDER DOES

The NSP (network service provider) is the company that installs your telephone service. During the initial installation your NSP does the following:

- Installs the RG3000 and connects it to your home entertainment system.
- Sets all features and services to which you have subscribed.
- Ensures that the remote control used with your RG3000 is the correct model.
- Installs the batteries in your remote control.
- Programs your remote control to operate your TV.
- Writes the remote control ID in the space provided (see form below).

ABOUT RF CHANNELS

Your NSP sets your TV to operate on a specific RF channel. This setting allows you to receive video and audio broadcast services.

Programming the TV to an RF channel is similar to setting a TV to a specific channel, such as channel 3, in order to view movies played on your VCR. After the RF channel has been set, it is recommended that you do not change it, as you will no longer be able to receive programming unless you retune your TV to a new RF channel.

Once your TV is tuned to the specified RF channel, the RG3000 and your remote allow you to surf through the channel line-up and tune to any program from any TV viewing location. The table below shows the association between the TV outputs and the RF channel.

OUTPUT Ports	RF Channel
NETWORK IN/TV OUT and/or TV OUT	3 or 4

WRITE YOUR REMOTE CONTROL AND OTHER IDS HERE

You may wish to label your remote control so you can easily identify it. Ask your service provider for labels if they have not already been provided for you.

Write your remote control ID here:	Write your TV code here:	Write your Gateway ID here:

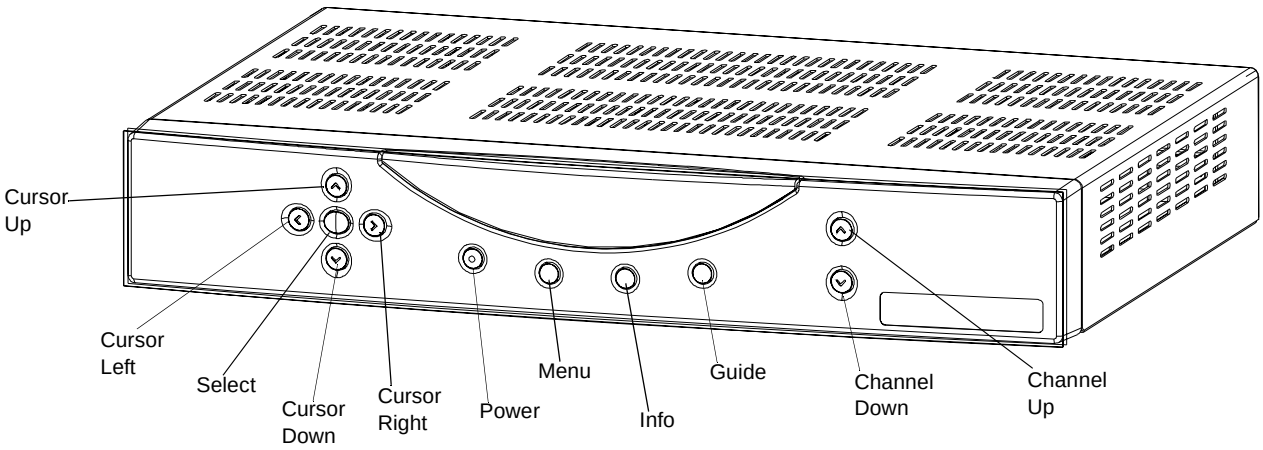
GETTING STARTED

This section contains basic information needed to get you started using your new RG3000 right away. This information is covered in the following subsections:

- "Using Your RG3000" on page 9
- "Using Your Remote Control" on page 11
- "Changing Channels" on page 12
- "Controlling TV Volume" on page 12
- "Setting Up Channel Order and Your Favorite Channel List" on page 12
- "Caller ID/Message Waiting" on page 13
- "Using Pay-Per-View" on page 14
- "Access Parental Control" on page 14
- "Recording Your Favorite Programs" on page 15
- "Cancelling Your Recording" on page 16
- "Programming Your VCR Code (Optional)" on page 16
- "SRC-300A Remote Control Keys" on page 11

USING YOUR RG3000

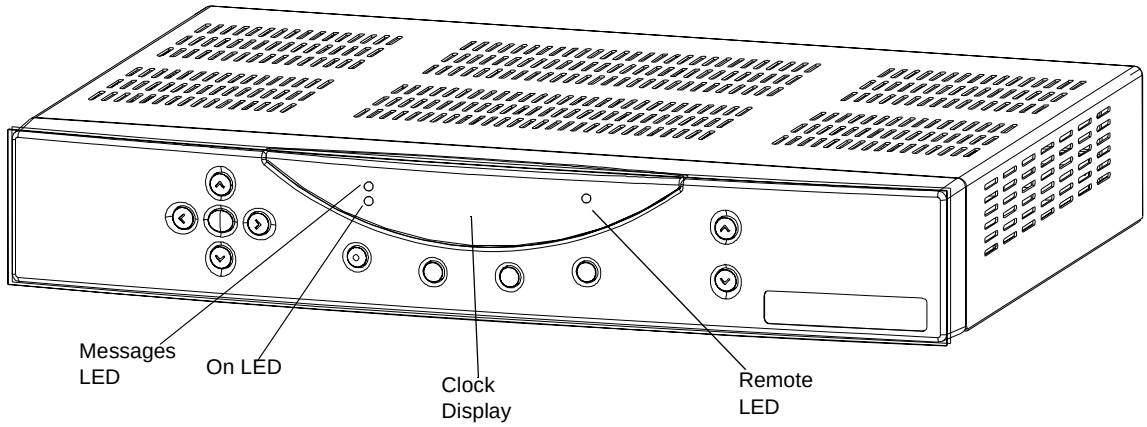
The figure below shows the buttons you need to be familiar with when using the RG3000. See the following table for descriptions of their functions.



The following table describes the buttons on the front of the RG3000.

Button Name	Button function
Cursor Up	Moves the cursor up, one position at a time, within the current application.
Cursor Left	Moves the cursor left, one position at a time, within the current application.
Select	Selects the current item.
Cursor Down	Moves the cursor down, one position at a time, within the current application.
Cursor Right	Moves the cursor right, one position at a time, within the current application.

Button Name	Button function
Power	■ Exits any active application. ■ Initiates power off sequence (either shows message/time display or power off channel depending on local settings). ■ Toggles Power LED and the AC outlet (turns both LED and AC outlet on and off). ■ Reboots (restarts) the RG3000 if pressed and held for 5 seconds or more.
Menu	Displays the Gateway Menu.
Info	Displays information about the currently selected channel.
Guide	Displays the program guide.
Channel Up	Increases the channel number.
Channel Down	Decreases the channel number.



The following table describes the LEDs on the front of the RG3000.

RG3000 LED	LED Function
Messages LED	A lit LED indicates one or more voice mail messages are present.
	When the LED is off, there are no voice messages present.
Power (On) LED	Lit when the AC outlet is switched on. Blinks off and on during the startup process.
Remote LED	Briefly lit when a remote control key is pressed (using the remote tuned to the first stream or primary TV). Indicates that remote keystroke activity is being seen by the settop.
Clock Display (4-character display)	■ Under normal operation, this display shows the current time. ■ When the user changes channels, this display will display the channel selected for a few seconds, and then return to presenting the current time. ■ Hardware Signoff - If the xDSL connection is lost or broken, the two characters on the left display a circling pattern, the two on the right will not be lit. ■ Software Signoff - If the xDSL connection is established but the system is unable to establish software signon, the two characters on the left display a circling pattern and the two characters on the right display a similar pattern.

AC OUTLET

The RG3000 has an AC outlet on the rear of the unit. Other devices can be plugged into this outlet. The outlet is on when the RG3000 is powered up. If you find that the outlet is off when the RG3000 is on, any press on the remote control turns the AC outlet back on.

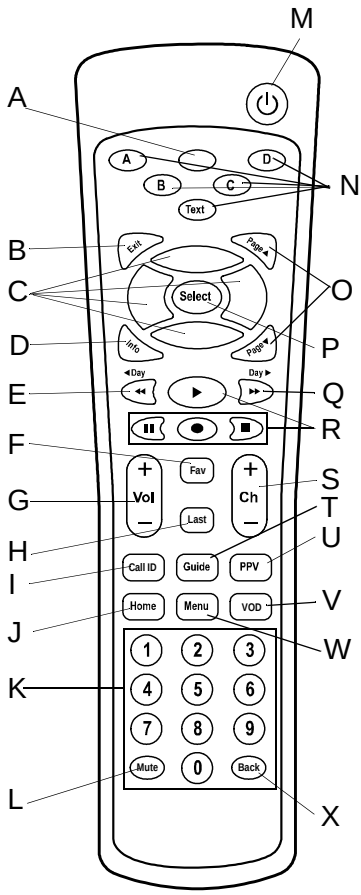
USING YOUR REMOTE CONTROL

The model SRC-300A remote control is to be used with the RG3000. The remote control allows you to control TV viewing from anywhere in your home. Your NSP (or yourself) can program it to operate your TV as well as your RG3000. The remote control operates by sending IR (infrared) signals to the RG3000. Your Network Service Provider programs your remote to operate in your home.

Your remote control requires a direct line-of-sight to function. In other words, you need to point the remote directly at the TV or the RG3000. Keys and functions are described in the following.

SRC-300A REMOTE CONTROL KEYS

A. **LED**: Lights when any button on the remote is pressed. Also, when pressed and held starts programming sequences.
B. **Exit**: Exits the current function.
C. **Directionals**: Move cursor in program guide and menus.
D. **Info**: Displays current channel and program guide and menus.
E. **Day back**: Moves program guide back 24 hours.
F. **Fav**: Scans through favorite channels.
G. **Vol**: Adjusts TV volume.
H. **Last:** Tunes to last channel.
I. **Call ID**: Opens caller ID screen.
J. **Home***: Displays web browser, if provided.
K. **Number pad**: Selects channels.
L. **Mute**: Mutes and unmutes TV sound.
M. **Power**: Powers TV on/off and tunes to default channel.
N. **A, B, C, D** and **Text***: Reserved for Teletext functions.
O. **Page up** and **down**: Pages up and down in program guide and menus.
P. **Select**: Selects highlighted option.
Q. **Day forward**: Moves program guide forward 24 hours.
R. **Play*, Record, Pause*,** and **Stop***: Video on demand controls.
S. **Ch**. Changes program channel.
T. **Guide**: Displays interactive program guide.
U. **PPV**: Displays pay per view menu.
V. **VOD*:** Launches VOD (video on demand) menu, if provided.
W. **Menu**: Displays main menu.
X. **Back*:** In the browser, moves back to the previous screen.



* Key not present on simplified remotes.

ACTIVATING THE RG3000

The RG3000 doesn't have an on/off button. However, if your NSP has activated the "One Touch Power" option, the RG3000 can be put into a power saving mode when you use the POWER button on the remote to turn the TV off. It is reactivated when the TV is turned on using the same button.

Changing Channels

To change the channel using the remote control buttons do one of the following:

- Press up or down on the channel key (labeled CHAN or Ch).
- Enter the channel number on the number key pad and press Select.
- Enter the channel number on the number key pad and wait 5 seconds; the RG3000 tunes to the channel entered.

To change the channel using the RG3000 front panel buttons:

- Press the up or down key on the front panel.

Controlling TV Volume

To raise or lower the volume on your TV using your remote control, press up or down on the VOL key.

To mute or unmute the TV volume using your remote control

1. Press the MUTE key on the remote to mute your TV.
2. Press it again to unmute the TV.

Setting Up Channel Order and Your Favorite Channel List

You can use the remote control to select what channels will appear in your guide, set up your TV channel order or create a list of your favorite channels. Once your favorite channel list is set up, it can be accessed by pressing the FAV button on your remote control.

To select channel list

1. Press the MENU key on your remote control
   The Main Menu screen of your interactive program guide is displayed.
2. Use the down (directional) key to highlight “Setup The Channels.”
3. Press SELECT.
   An options screen is displayed.
4. Use the down (directional) key to highlight “Select Channels.”
5. Press SELECT.
6. Follow the instructions on the screen using your remote control buttons.
7. When you have completed your selection, press EXIT to return to the previous screen.

To arrange the channel order

1. Press MENU.
   The Main Menu screen of your interactive program guide is displayed.
2. Use the up or down (directional) key to highlight “Setup The Channels.”

3. Press SELECT.
   An options screen is displayed.
4. Use the down (directional) key to highlight “Change Channel Order.”
5. Press SELECT.
6. Follow the instructions in the interactive program guide.
7. When you have completed your selection, press EXIT to return to the previous screen.

To Create a Favorite Channel List

1. Press MENU.
   The Main Menu screen of your interactive program guide is displayed.
2. Use the down (directional) key to highlight “Setup The Channels.”
3. Press SELECT.
   An options screen is displayed.
4. Use the down (directional) key to highlight “Favorite Channels.”
5. Press SELECT.
6. Follow the instructions in the interactive program guide to select your favorite channels.
7. When you have completed your selection, press EXIT to return to the previous screen.

User Tip: Selecting channels to be included in the Favorite Channel List can also be performed in Pay-Per-View and when in the program guide menu.

Now, whenever you access the program guide or press the FAV key on your remote control, the channels will be listed in the order you selected.

Replacing Remote Control Batteries

1. Remove the battery compartment cover by holding the remote control with its back facing you, then pressing the battery cover at the thumb depression and sliding it off.
2. Install two 1.5V AA alkaline batteries, aligning positive and negative terminals according to the diagrams in the battery compartment.
3. Replace the remote control battery cover, snapping it into place.
4. Press the Power button on the remote control.

Caller ID/Message Waiting

Note: The model RG3000C supports Caller ID. The model RG3000V does not support Caller ID.

If you have subscribed to Caller ID, Voice Mail or Call Waiting services with your NSP, these capabilities are enabled as soon as the RG3000 is connected to the network.

When an incoming call arrives, the message LED on the front of the RG3000 is illuminated and caller ID information appears in the upper left-hand corner of each of the TVs that is caller-ID enabled.

The information may include some or all of the following, depending on the services available in your area.

- The caller's name
- The caller's number

You may also receive messages indicating the following conditions.

- The caller is out of the area
- The caller ID information is unavailable

Some of the caller information received is marked as private.

All caller ID information is added to the Call Log. The RG3000 maintains a log of the last 50 calls. Information that is unavailable appears in the Call Log as unavailable or private. The log includes:

- The caller's name
- The caller's number
- The date of the call
- The time of the call

To view the Call Log

1. Press the CALL ID key on your remote control.
   The Caller ID Log is displayed. New calls appear with an asterisk (*) and highlighted text.

User Tip: Make changes to your Caller ID and Voice Mail setups by pressing the MENU button and then selecting "Telephone Services."

2. Use the up or down (directional) keys to scroll through the list of calls in the Call Log. Or, use the PAGE UP or PAGE DOWN buttons to scroll through pages of calls.
3. Press EXIT when you have finished.

Using Pay-Per-View

The RG3000 allows you purchase and cancel Pay-Per-View programs and create passwords that control the ability to purchase programs.

1. Press the PPV key on your remote control.
   The interactive pay-per-view program guide is displayed.
2. Use your remote control and follow the instructions in the interactive program guide.

Access Parental Control

The RG3000 allows you to use parental discretion about the TV programs or movies you want your children viewing. This "parental lock" is easily set up and removed using your remote control. You can control access by limiting access by channel, by rating and content, or by time.

1. Press MENU on your remote control.

The Main Menu screen is displayed.

2. Use the down (directional) key on your remote to highlight “Parental Control.”
3. Press SELECT.

   An options menu is displayed. The options include:

   - Parental Control Locks
   - Setup Passwords
4. Highlight the action you want to perform.
5. Press SELECT.
6. Follow the instructions on your interactive program guide.

Important! If you have forgotten your password and are unable to access pay-per-view or the parental controls, contact your NSP and have them reset your password.

Closed Captioning

The RG3000 supports closed captioning capability. Refer to ”Closed Caption Display Settings” on page 26 or to your TV’s instructions for more information on how to use closed captioning.

Recording Your Favorite Programs

User Tip: When you are connecting your RG3000 to a VCR that has more than one AV input, be sure to plug into the default, or primary input, which could be called AV-1 or L-1.

Make sure that your NSP has connected the VCR to the RG3000. For examples of VCR connections See “Connections” on page 30.

1. Turn on your VCR.
2. Load the tape you want to record on.
3. Press GUIDE on your remote control.
4. Highlight the channel you wish to record.
5. Press SELECT.
6. Start the record function on your VCR. (Consult your VCR user’s manual for the correct procedure.)

User Tip: If you don’t want caller ID or other messages to appear in a program you are recording, turn the caller ID feature off. See User Tip on page 14.

Setting Up Your RG3000 To Start Your VCR (Optional)

Note: The IR Blaster (see illustrations on page 35) must be installed and your VCR(s) must be programmed into the RG3000 by your NSP before the RG3000 can be programmed to record your favorite program. If the IR Blaster hasn’t been installed, contact your NSP. Not all NSPs support use of the IR Blaster.

To setup the RG3000:

1. Press GUIDE on your remote control.
2. Use the up or down key to highlight the program you wish to record.

3. Press SELECT. An options menu is displayed.
4. Follow the interactive program guide instructions to set up the times to you want start and stop the recording.

User Tip: The record set up can be accessed from the Pay-Per-View menu so your pay-per-view selection can be recorded at the time you choose.

When your programming is complete, the following occurs.

- Your VCR begins recording.
- The record LED on the front panel of RG3000 turns on.

Note: You cannot change channels while the recording is in progress.

Cancelling Your Recording

If you want to cancel a recording in progress:

1. Press SELECT on your remote control.
2. Use the right key to highlight “Cancel.”
3. Press SELECT. Your recording will be canceled.

Programming Your VCR Code (Optional)

Note: Not all NSPs support VCR codes.

1. Turn on VCR.
2. Put a recordable tape into the VCR.
3. Press Menu on the remote control.
   The Main Menu is displayed.
4. Use the down (directional) key to highlight “Setup VCR.”
5. Press SELECT.
   An options menu is displayed.
6. If you know your VCR brand and code, highlight “Quick VCR Setup.” See ”TV and VCR Codes” on page 39 for a list of compatible VCRs.
7. Press SELECT.
   An interactive action menu is displayed.
8. Follow the instructions in the menu.
9. If you don’t know your VCR code, highlight “Complete VCR Setup.”
10. Press SELECT.
    An interactive action menu is displayed.
11. Follow the instructions on the menu.

ADVANCED USE

You will need the information in this section if you want to change the default settings that were set up by your NSP or reprogram your remote control because it is not working correctly.

Note: Your NSP programs your RG3000 and remote control when your system is first connected. The NSP also programs the same Gateway ID (this is the ID of your RG3000) into your remote control. If there is more than one RG3000 in your home, your NSP programs the Gateway ID into each remote control that communicates with a specific RG3000.

CHANGING OR PROGRAMMING SETTINGS

By using the remote control, the RG3000 front-panel buttons, and on-screen menus, you can perform the following tasks.

- Determine the remote control Operating Mode
- Set the remote control Operating Mode
- Determine the Gateway ID
- Set the Gateway ID
- Determine the Remote Control ID
- Set the Remote Control ID
- Program TV Code
- Verify the TV RF channel
- Set the Display Language
- Set up Secondary Audio
- Set the EADS (Emergency Alert Device Support) display
- Set the Aspect Ratio
- Set the HD (high definition) resolution settings
- Set Closed Caption options

DETERMINE THE REMOTE CONTROL OPERATING MODE

1. Press the LED key for three seconds until the LED flashes.
2. Press the INFO key. The LED stops blinking at this point and stays on solid.
3. Press and release the D key. When the D key is released, the LED immediately turns off.
4. Watch the LED.

   The Operating Mode is indicated by a blink sequence. A short burst of flickering blinks indicates a '0' (SRC-200 Compatibility Mode) while a single blink indicates a '1' (SRC-300A Native Mode.) There is a 1-second pause before the LED turns on.

   Once the LED sequence has completed, the SRC-300A returns to normal mode operation.

SET THE REMOTE CONTROL OPERATING MODE

The SRC-300A remote control operates older RG models as well as newer models. To allow for this, the remote can be set to operate in either SRC-200 Compatibility Mode (to operate like the older remote control) or SRC-300A Native Mode. When in SRC-200 Compatibility Mode, the SRC-300A transmits IR messages that use the same format as the older SRC-200 remote control (messages are 16-bits in length.) When in SRC-300A Native Mode, the SRC-300A transmits IR messages using the 18-bit message format. The default operating mode is SRC-200 Compatibility mode.

To program the operating mode:

1. Press and hold the LED key until it starts to blink.
   If an invalid code is entered or a 20 second lapse in button presses occurs, the LED will turn off and the remote control will return to normal operation. You will need to begin the procedure from step 1.
2. Press the REC key. The LED stops blinking and stays solid.
3. Press and release the D key.
   The LED temporarily turns off. Releasing the key causes the LED to light up again.
4. Press 0 to select SRC-200 compatibility mode or 1 to select SRC-300A native mode.
   The new Operating Mode is then stored in the device.

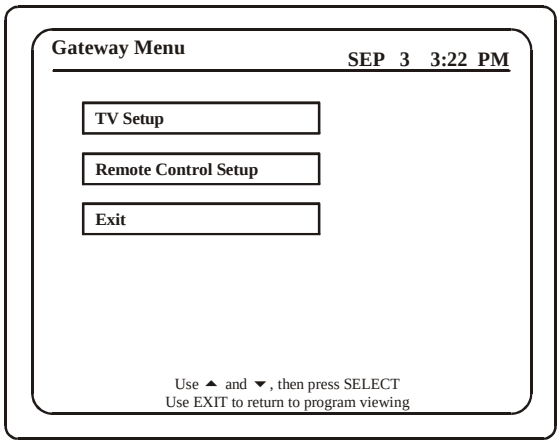
Important! If the Operating Mode had been 1 (SRC-300A Native Mode) and is now set to zero (SRC-200 Compatibility Mode), then the Gateway ID is reset to zero and also stored in the device.

Once changes have been made, the remote control resumes normal operation. If the value entered was not valid (a keypress other than 0 or 1,) the LED indicates the error by turning off immediately and the remote returns to normal operation. (All values in the device remain unchanged.)

DETERMINING THE GATEWAY ID

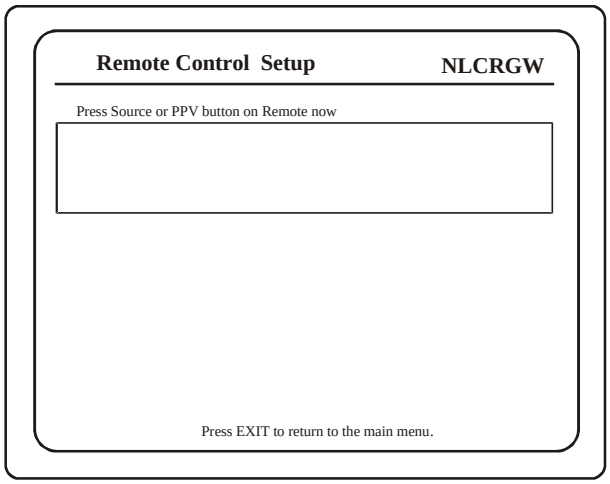
Check, ”Write Your Remote Control and Other IDs Here” on page 8. Your NSP may have already recorded the Gateway’s ID on this page or on the back of the remote. If the ID has not been recorded, perform the following steps.

1. Press the MENU button on the front panel of the RG3000. (See “Using Your RG3000” on page 9 for an illustration and description of this button and other buttons on the RG3000s.)
   The Gateway Menu screen will be displayed on your TV.

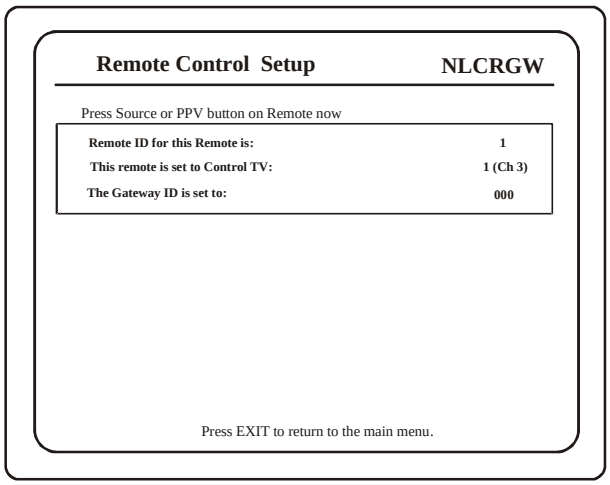


2. Use the down key on your remote control to move down to Remote Control Setup.
3. Press SELECT on your RG3000 or your remote control.

The Remote Control Setup screen will be displayed.



4. Press PPV on your remote control.
   The screen lists the ID for the remote and shows the Gateway ID.


Remote Control Setup
NLCRGW
Press Source or PPV button on Remote now
Remote ID for this Remote is: 1
This remote is set to Control TV: 1 (Ch 3)
The Gateway ID is set to: 000
Press EXIT to return to the main menu.

   If the Gateway ID programmed into your remote control does not match the Gateway ID of the RG3000, the system prompts you to reset the Gateway ID.

   For future reference, write down the Gateway ID number displayed in ”Write Your Remote Control and Other IDs Here” on page 8.
5. Press EXIT twice on your remote to exit the Remote Control Setup and Gateway Menus.

SETTING THE GATEWAY ID

1. Press the LED key and hold it down until the LED flashes rapidly.
2. Press the REC key. The LED stops blinking at this point and stays on solid.
3. Press the B key. The remote is now in programming mode. You can set the GATEWAY ID.
4. Enter the 3-digit code assigned to your RG3000. The valid range is 004 - 999 for SRC-300As in native mode. For SRC-300As in SRC-200 Compatibility mode, the range is 004 - 255. Enter a number with 3-digits, even if it contains leading zeroes. Examples of valid values are: 009, 012, 354, or 988.

   If you entered the Gateway ID correctly, the LED blinks several times. If the value was not entered successfully, the LED goes off and the remote control returns to normal operation. Repeat the steps above to try again. See ”Determining the Gateway ID” on page 18 to verify the Gateway ID.

Determining the Remote Control ID

1. Press the LED key for 3 seconds until the LED flashes.
2. Press the INFO key. The LED stops blinking at this point and stays on solid.
3. Press the A key and watch the LED.

   Following are the sequences of flashing that indicate how your remote control ID is programmed.
   - A short burst of flickering indicates a 0 (zero). A number of longer, steady blinks indicates a non-zero digit. A zero is the only valid value for use with an RG3000.
   - After blinking, the remote returns to normal operation.

Number of flashes	Remote Control ID	Mode
Rapid flickering (indiactes zero)	For TV in the same room as your RG3000[a]	IR (Infra Red)

a. The RG3000 can only be used with the SRC-300A in IR mode and does not support UHF mode.

Setting the Remote Control ID

Your NSP uses the following table when programming your remote control ID to work with each TV in your household.

Remote Control ID	Operates TV	Mode
0	Local TV--TV in same room as RG. Remote is set to operate in IR mode.[a]	IR

a. The RG3000 can only be used with the SRC-300A in IR mode and does not support UHF mode.

To program the remote control ID:

1. Press the LED key and hold it down until the LED flashes rapidly.
2. Press the REC key. The LED stops blinking at this point and stays on solid.
3. Press the A key. The remote is now in programming mode.
4. Enter the single-digit remote control ID from the table above.

Note: Valid single-digit codes are 0, and 1.

If you entered an invalid sequence or a 20-second lapse in button presses occurs, the LED turns off and the remote control returns to standard operation.

If you correctly entered the single-digit code, the LED flashes on and off and then remains off.

Programming the TV Code

Your Network Service Provider programs your remote control to work with your TV by way of a TV code. The TV Code is a specific code for each brand and model of TV. When a TV code is set, the remote control is ready to operate the TV. The TV codes can be programmed manually, or they can be scanned. Each of the methods is described below.

Follow the steps below to program the TV code when you already know the three-digit code. (For a list of codes, see ”TV and VCR Codes” on page 39.)

1. Press the LED key and hold it down until the LED flashes rapidly.
2. Press the REC key. The LED stops blinking at this point and stays on solid.
3. Press and release the C key. The remote is now in programming mode.
4. Enter the three-digit code that corresponds to the brand name of the TV. See “TV Codes - SRC 300” on page 39.

   If the code is valid, the LED will flash on and off three times and then remain off.

   If an invalid code is entered or a 20 second lapse in button presses occurs, the LED will turn off and the remote control will return to normal operation. You will need to repeat the above procedure to program the TV code.

Programming the TV Code Using Code Search Method

To program a TV code by using the search or scan method:

1. Press the LED key and hold it down until the LED flashes rapidly.
2. Press the REC key. The LED stops blinking at this point and stays on solid.
3. Press and release the POWER key. The remote is now in TV code scan programming mode.
4. Press the up key to scan through all TV codes. When you reach the correct TV code, the TV will automatically turn on, or off if it was previously on. Note that the LED will flash rapidly once you have scanned through all the codes, and then it will continue to go through the codes again in a continuous wrap.
5. Press the SELECT button to store the TV code. The LED flashes rapidly, then stops, indicating that the TV code has been stored.
6. If you press the up key too rapidly, you may pass the TV code before the time the TV turns on or off. If you are not sure you are storing the correct TV code, press the down key slowly to cycle back through codes that have been previously scanned.
7. When the TV turns off, or on if it was previously off, press SELECT at that point to store the TV code.

Verifying the TV Codes

To playback the TV code:

1. Press the LED key and hold it down until the LED flashes rapidly.
2. Press the INFO key. The LED stops blinking at this point and stays on solid.
3. Press and release the C key. The remote is now in playback mode.
4. Observe the LED. The TV code will be indicated by a blink sequence for each number. See example below.

   For example, code 130 would show as the following:

   <pause> <long blink> <off> (represents 1)
   <pause> <long blink> <long blink> <long blink><off> (represents 3)
   <pause> <short burst of flickering blinks> <off> (represents 0)

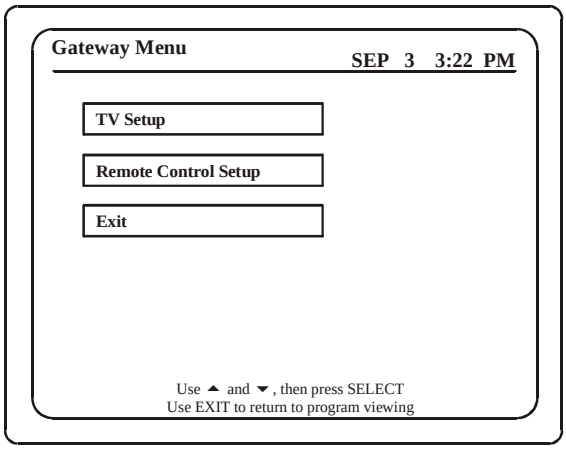
VERIFYING AND SETTING OTHER FEATURES

The TV Setup menu allows you to read and set the TV RF settings, as well as set Secondary Audio, Display Language, the EADS display, TV aspect ratio, and closed captioning options. Access these from the TV Setup Menu.

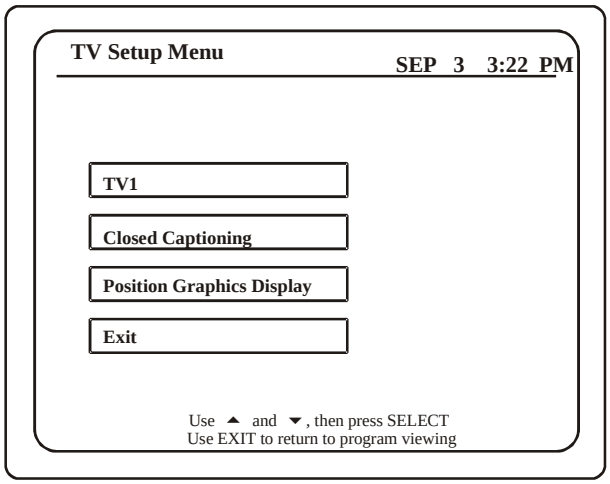
ACCESSING THE TV SETUP MENU

To access TV Setup Menu:

1. Press the MENU button on the front panel of the RG3000.
   The Gateway Menu is displayed on your TV screen.



2. Use the down or up key on the RG3000 or the remote to highlight TV Setup.
3. Press the SELECT button on the RG3000 or the remote control.
   The TV Setup menu is displayed on your TV screen.

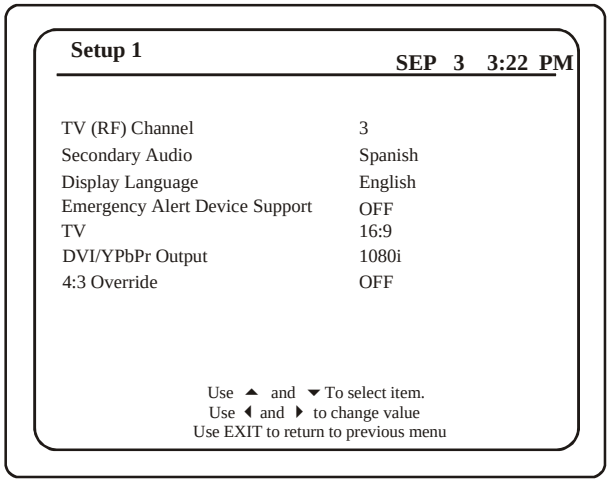


Note: The [Position Graphics Display] option is unused.

VERIFYING THE TV (RF) SETTING

1. Press the MENU button on the RG3000 front panel. The Gateway Menu is displayed.

2. Use the down or up key on the RG3000 or the remote control to scroll to TV Setup.
3. Press SELECT. The TV Setup Menu will be displayed on your TV.
4. Use the down or up key on the remote control to highlight “TV1.”
5. Press SELECT.
   The Setup 1 menu will be displayed. The selected RF setting is displayed, in this case channel 3 has been selected.


Setup 1
SEP 3 3:22 PM
TV (RF) Channel 3
Secondary Audio Spanish
Display Language English
Emergency Alert Device Support OFF
TV 16:9
DVI/YPbPr Output 1080i
4:3 Override OFF
Use ▲ and ▼ To select item.
Use ◀ and ▶ to change value
Use EXIT to return to previous menu

Note: Your Network Service Provider sets up the initial RF channel setting and your TV to provide program channels by programming the output to a specific RF channel. If you need to change the RF channel settings, it is recommended that you call your NSP to do this for you.

6. Press the EXIT button twice to exit back to the program screen.

Secondary Audio: Specifying A Preferred Language

Secondary audio allows you to select a preferred language for each TV.

Your NSP may deliver up to four audio programs with each video program. Your NSP may specify, for example, English as the first language, Spanish as the second, French as the third and so on. If the preferred language is available, the alternate language audio track will be transmitted with the video program.

If a selected language is not provided on a particular channel, the RG3000 defaults to the primary language provided with the program. For example, if you are watching a Spanish-only channel, Spanish audio is played regardless of the Secondary Audio Display option.

1. Press the MENU button on the RG3000.
   The Gateway Menu is displayed.
2. Use the up and down keys to highlight the TV Setup option.
3. Press SELECT.
   The TV Setup menu is displayed.
4. Use the up and down keys to highlight “TV1.”
5. Press SELECT.
   The Setup TV# menu is displayed.
6. Use the up or down key on your RG3000 or remote control to highlight Secondary Audio.
7. Use the left and right keys to cycle through the alternate languages until the language you want is displayed.

8. Press the EXIT button twice to return to the program screen.

DISPLAY LANGUAGE

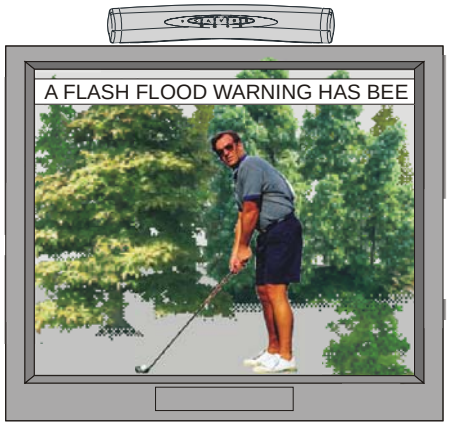
1. Press the MENU button on the RG3000.
   The Gateway Menu is displayed.
2. Use the up and down keys to highlight the TV Setup option.
3. Press SELECT.
   The TV Setup menu is displayed.
4. Use the up and down keys to highlight “TV1.”
5. Press SELECT.
   The Setup menu is displayed.
6. Use the up or down key on your RG3000 or remote control to highlight Display Language.
7. Press the right key to highlight the default language.
8. Continue to press the right key in the language field until the language you want appears. Available languages are English, Spanish (Espanol), and French (Francais).
9. When you have selected the preferred language, press EXIT to return to the Main Menu screen.

EADS (EMERGENCY ALERT DEVICE SUPPORT)

Your NSP enables the EADS (Emergency Alert Device Support) when service is established. If you would like to disable or change the EADS settings, use the following directions:

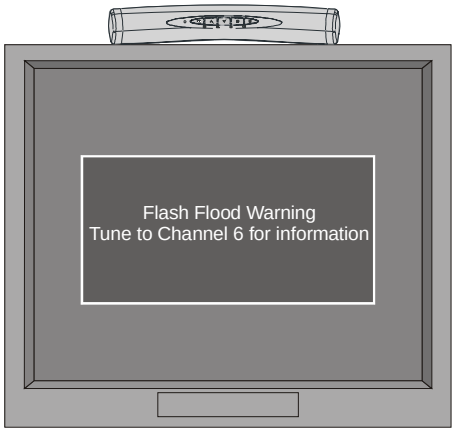
1. Press the MENU button on the RG3000.
   The Gateway Menu is displayed.
2. Use the up and down keys to highlight the TV Setup option.
3. Press SELECT.
   The TV Setup menu is displayed.
4. Use the up and down keys to highlight “TV1.”
5. Press SELECT.
   The Setup menu appears on your TV screen.
6. Use the up and down keys to highlight Emergency Alert Device Support.
7. Press the right or left keys to enable/disable Emergency Alert Device Support.
8. Press EXIT to return to the previous menu.
   If Emergency Alert Device Support is enabled, the following occurs for all EAS (Emergency Alert System) broadcasts:
   - You hear a two-tone attention signal during Emergency Alert broadcasts.
   - The RG3000 automatically tunes your TV to the channel that is broadcasting the EAS message.

- The emergency message appears at the top of your TV screen.



If EADS is not enabled, one of the following occurs, depending on the type of EAS broadcast:

- You hear a two-tone attention signal.



- A pop-up message appears on your TV screen to advise you of what type of emergency has occurred and the channel you should tune for more information.
- The RG3000 automatically tunes your TV to the channel that is broadcasting the EAS message.

Note: For national and required monthly testing alerts, the RG3000 automatically tunes the TV to the EADS channel.

ASPECT RATIO

1. Press the MENU button on the RG3000.
   The Gateway Menu is displayed.
2. Use the up and down keys to highlight the TV Setup option.
3. Press SELECT.
   The TV Setup menu is displayed.
4. Use the up and down keys to highlight “TV1.”
5. Press SELECT.
   The Setup menu is displayed.
6. Use the up or down key on your RG3000 or remote control to highlight “TV.”
7. Press the right key to highlight the setting.
8. Continue to press the right key in the field until the setting you want appears.

The default setting is 16:9. Other choices include 4:3 pan/scan and 4:3 letterbox. Try out different settings to see which you prefer.

9. When you have completed your selection, press EXIT to return to the Main Menu screen.

HD Component Output Resolution

1. Press the MENU button on the RG3000.
   The Gateway Menu is displayed.
2. Use the up and down keys to highlight the TV Setup option.
3. Press SELECT.
   The TV Setup menu is displayed.
4. Use the up and down keys to highlight “TV1.”
5. Press SELECT.
   The Setup menu is displayed.
6. Use the up or down key on your RG3000 or remote control to highlight “DVI/YPbPr Output.”
7. Press the right key to highlight the setting.
8. Continue to press the right key in the field until the setting you want appears.
   The default setting is 1080i. Other choices include 720p (720 progressive) and 480p (480 progressive). Try out different settings to see which you prefer.
9. When you have completed your selection, press EXIT to return to the Main Menu screen.

HD Component Output 4:3 Override

1. Press the MENU button on the RG3000.
   The Gateway Menu is displayed.
2. Use the up and down keys to highlight the TV Setup option.
3. Press SELECT.
   The TV Setup menu is displayed.
4. Use the up and down keys to highlight “TV1.”
5. Press SELECT.
   The Setup menu is displayed.
6. Use the up or down key on your RG3000 or remote control to highlight “4:3 Override.”
7. Press the right key to highlight the setting.
8. Continue to press the right key in the field until the setting you want appears.
   The default setting is “Off.” You may also choose 480p (uses 480p output resolution for 4:3 content). Try out different settings to see which you prefer.

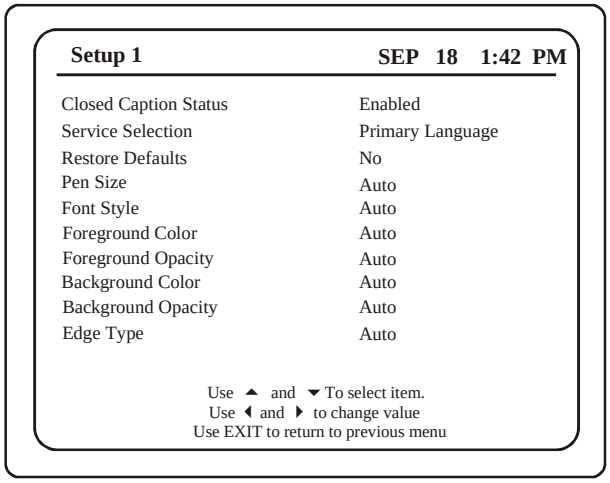
Note: You might notice a momentary loss of video signal. This loss is due to the TV tuning to the new resolution.

9. When you have completed your selection, press EXIT to return to the Main Menu screen.

Closed Caption Display Settings

1. Press the MENU button on the RG3000.
   The Gateway Menu is displayed.

2. Use the up and down keys to highlight the TV Setup option.
3. Press SELECT.
   The TV Setup menu is displayed.
4. Use the up and down keys to highlight “Closed Caption.”
5. Press SELECT.
   The Closed Caption menu is displayed.



6. Use the up or down key on your RG3000 or remote control to highlight the item you want to change.
7. Press the right key to highlight the setting.
8. Continue to press the right key in the field until the setting you want appears.
   Try out different settings to see which you prefer. Settings are listed in the table below.
9. When you have completed your selection, press EXIT to return to the Main Menu screen.

Option	Settings
Closed Caption Status	■ Disabled - closed captioning is off ■ Enabled - closed captioning is on.
Service Selection	■ Primary Language - Captions in the predominate language of the region ■ Secondary Language - Captions in the secondary language of the region (if available) ■ Language 3 - Additional language service defined by system operator ■ Language 4 - Additional language service defined by system operator ■ Language 5 - Additional language service defined by system operator ■ Language 6 - Additional language service defined by system operator
Restore Defaults	■ Yes - Restore closed captioning configuration defaults ■ No - Retain user preferences
Pen Size	■ Auto - Uses the caption author’s recommendation ■ Small ■ Standard ■ Large
Font Style	■ Auto - Uses the caption author’s recommendation ■ Default ■ Mono serif ■ Proportion serif ■ Mono no serif ■ Proportion no serif ■ Casual ■ Cursive ■ Small

Option	Settings
Foreground Color	■ Auto - Uses the caption author's recommendation ■ White ■ Black ■ Red ■ Green ■ Blue ■ Yellow ■ Magenta ■ Cyan
Foreground Opacity	■ Auto - Uses the caption author's recommendation ■ Solid ■ Flashing ■ Translucent ■ Transparent
Background Color	(same options as Foreground Color)
Background Opacity	(same options as Foreground Opacity)
Edge Type	■ Auto - Uses the caption author's recommendation ■ None ■ Raised ■ Depressed ■ Uniform ■ Left drop shadow ■ Right drop shadow

CONFIGURATION EXAMPLES

Your Network Service Provider installs the RG3000 and connects all your electronic devices to the RG3000. However, you may need the information in this section if you ever want to do any of the following:

- Move existing devices to a different location
- Add new devices to your system
- Reconfigure existing connections

Note: The RG3000 should be located in the same area as your TV and home entertainment system.

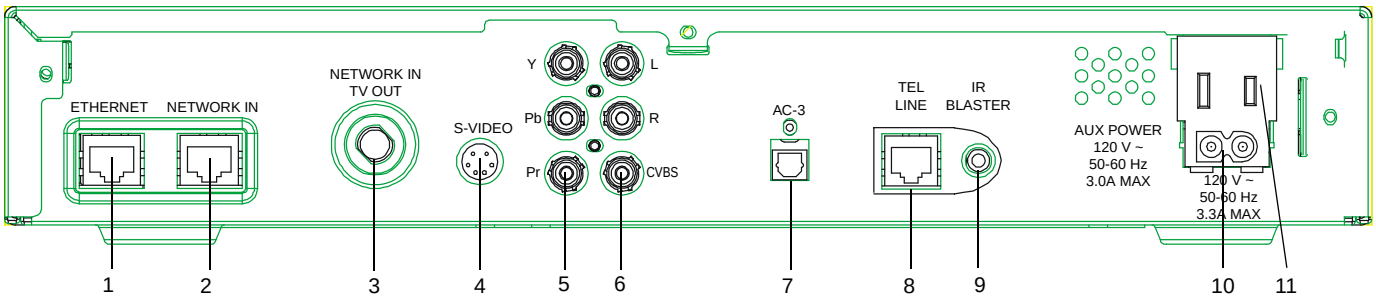
When you rearrange your equipment, be sure to unplug and plug in your equipment in the following order:

1. Unplug all electronic devices, including the TV, VCR, and RG3000.
2. Disconnect all cables between your electronic devices.
3. Make your planned changes.
4. Reconnect the cables between these devices.

User Tip: When you are plugging your RG3000 in to a VCR that has more than one AV input, be sure to plug your RG3000 into the default, or primary input, which could be called AV-1 or L-1. Consult your VCR user's manual.

5. After you have connected the cables, first plug in the RG3000.

RG3000 back panel

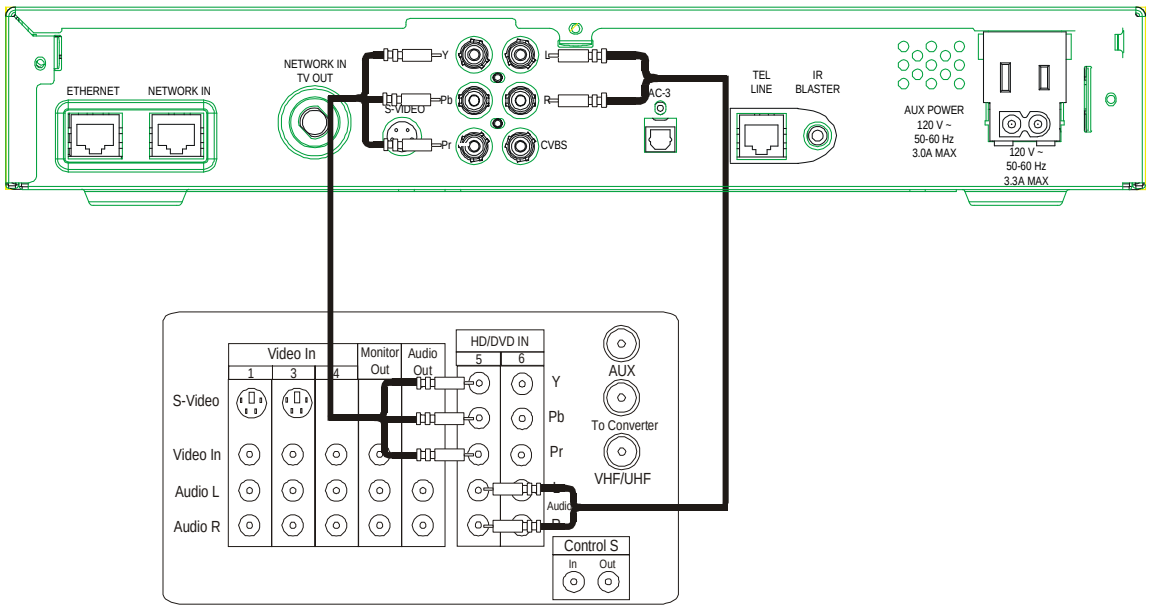


1. ETHERNET (unused)
2. NETWORK IN
3. NETWORK IN/TV OUT
4. S-VIDEO
5. HDTV: Y, PB, and Pr[1]
6. Audio L, R, and CVBS (composite video)
7. DIGITAL AUDIO (Dolby Digital or AC-3 on S/PDIF connector)
8. Telephone Line[2]
9. IR BLASTER
10. AC Power
11. AC Outlet

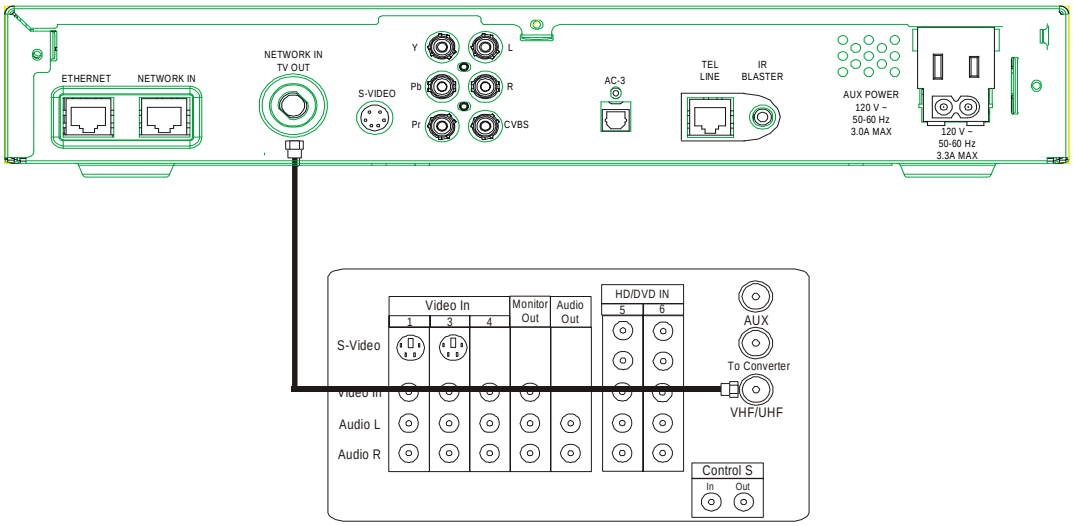
1. Required connections for Component video (HDTV).
2. On model RG3000C only; not available on RG3000V.

CONNECTIONS

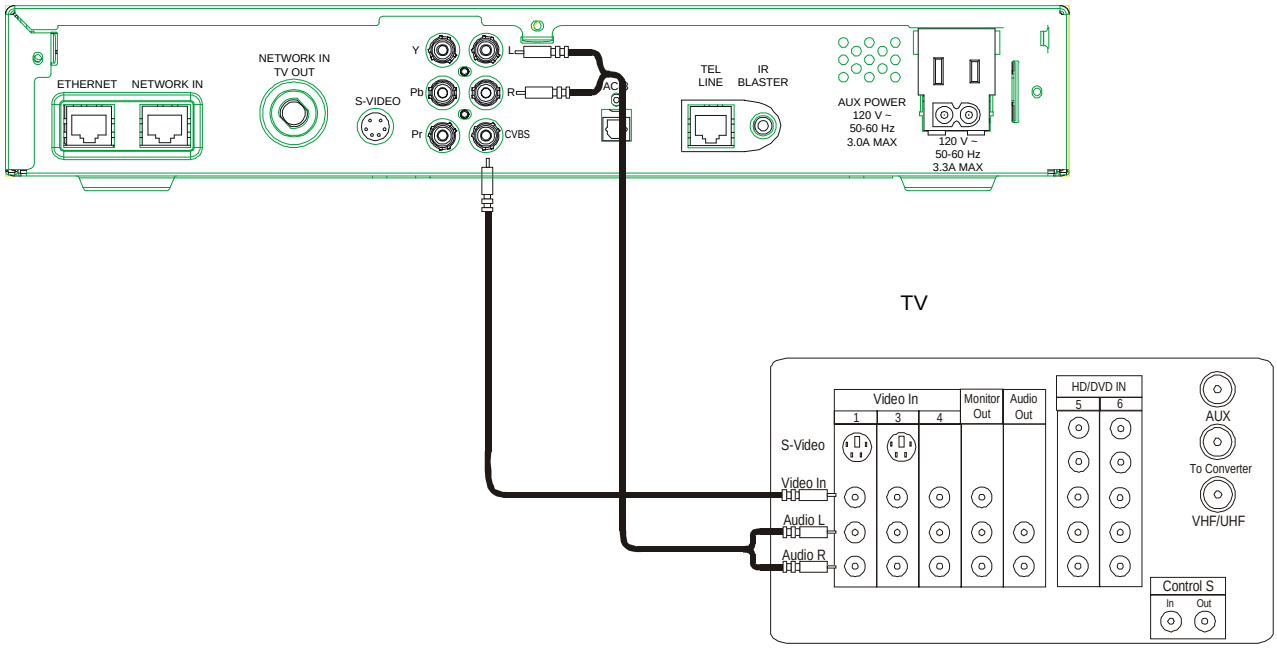
Basic HDTV Connections



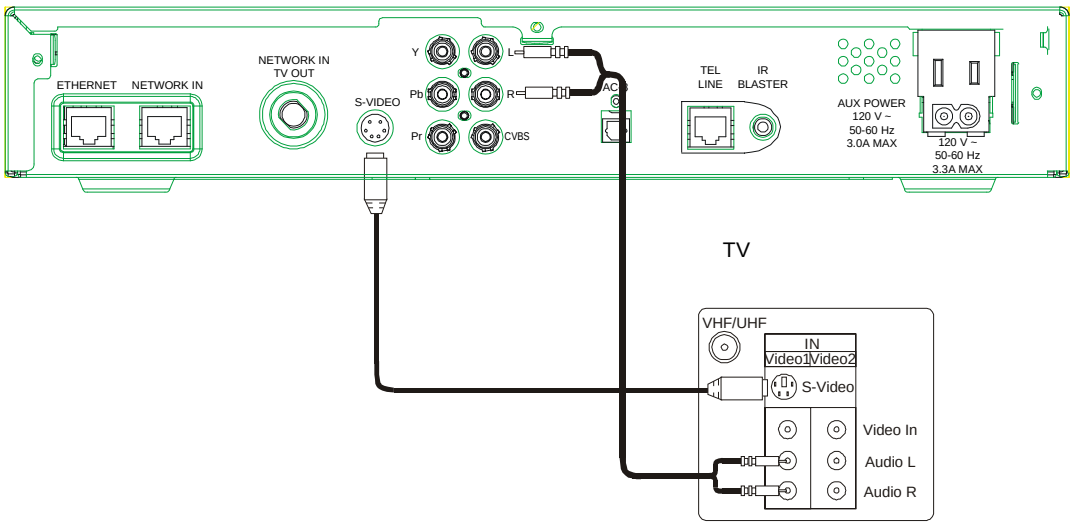
TV OUT (VHF) to TV



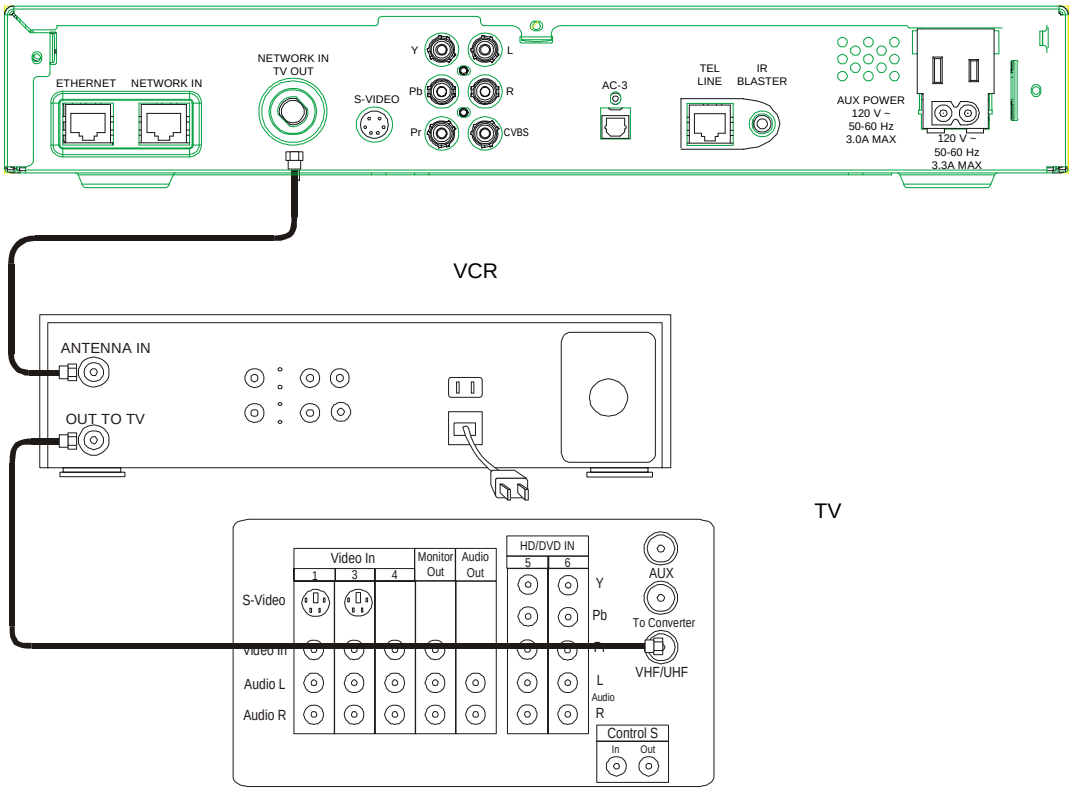
VIDEO (composite)/AUDIO-L/AUDIO-R to TV



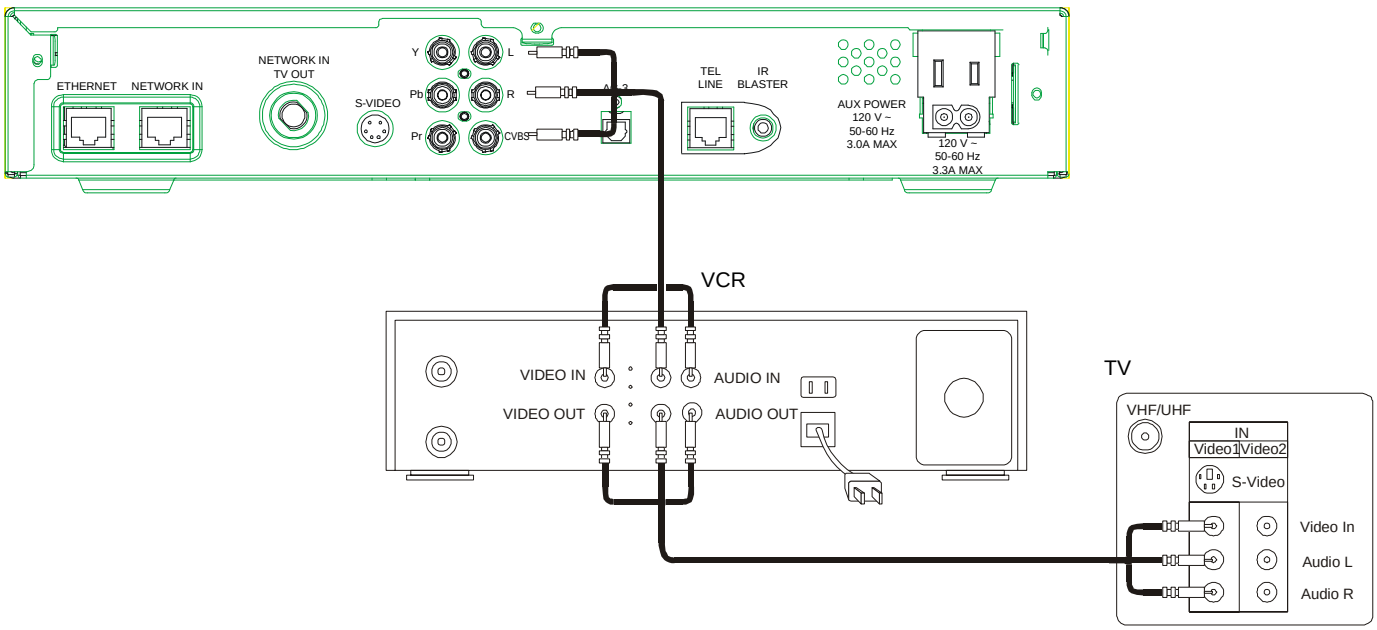
S-VIDEO/AUDIO-L/AUDIO-R to TV



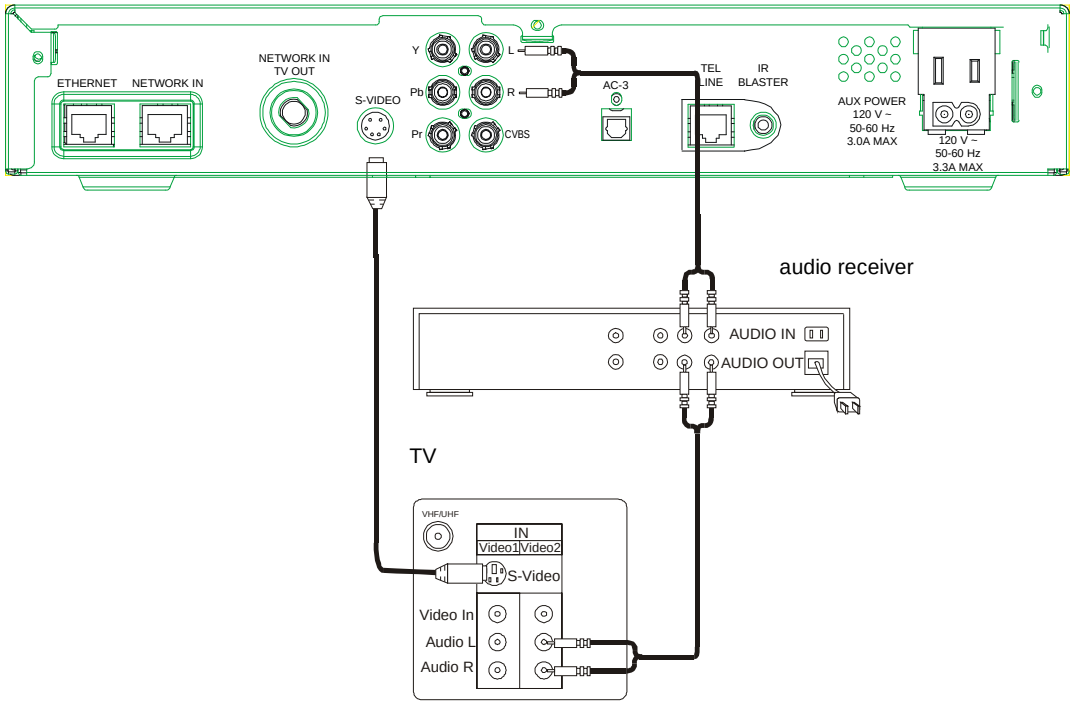
TV OUT (VHF) to VCR/TV



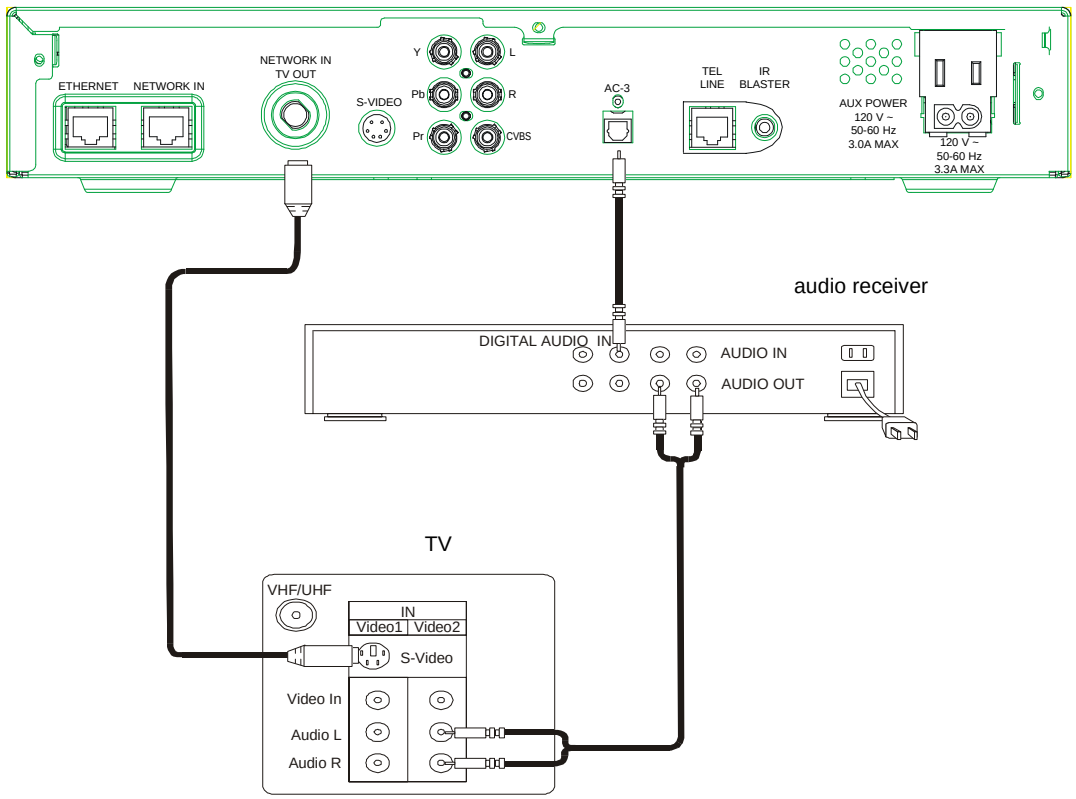
Composite VIDEO with AUDIO-L/AUDIO-R to VCR and TV



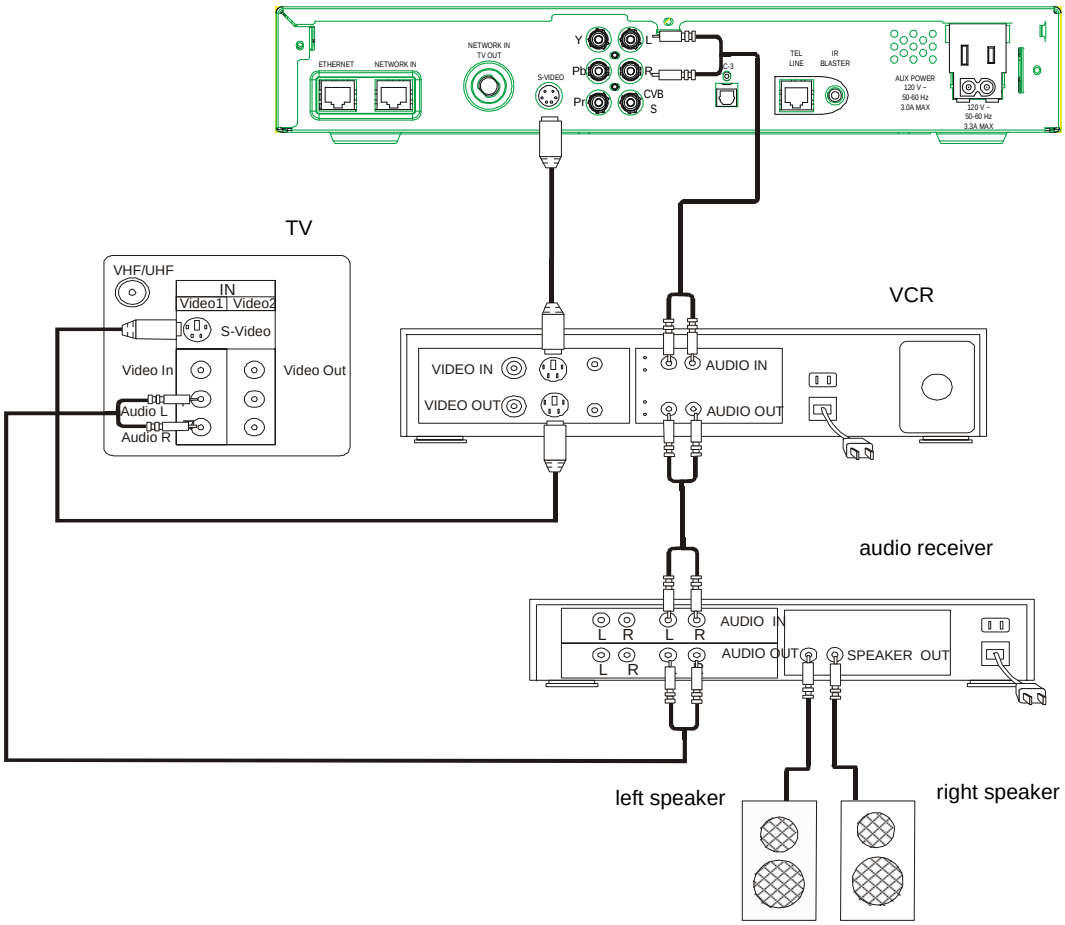
S-VIDEO and AUDIO-L/AUDIO-R to audio receiver and TV



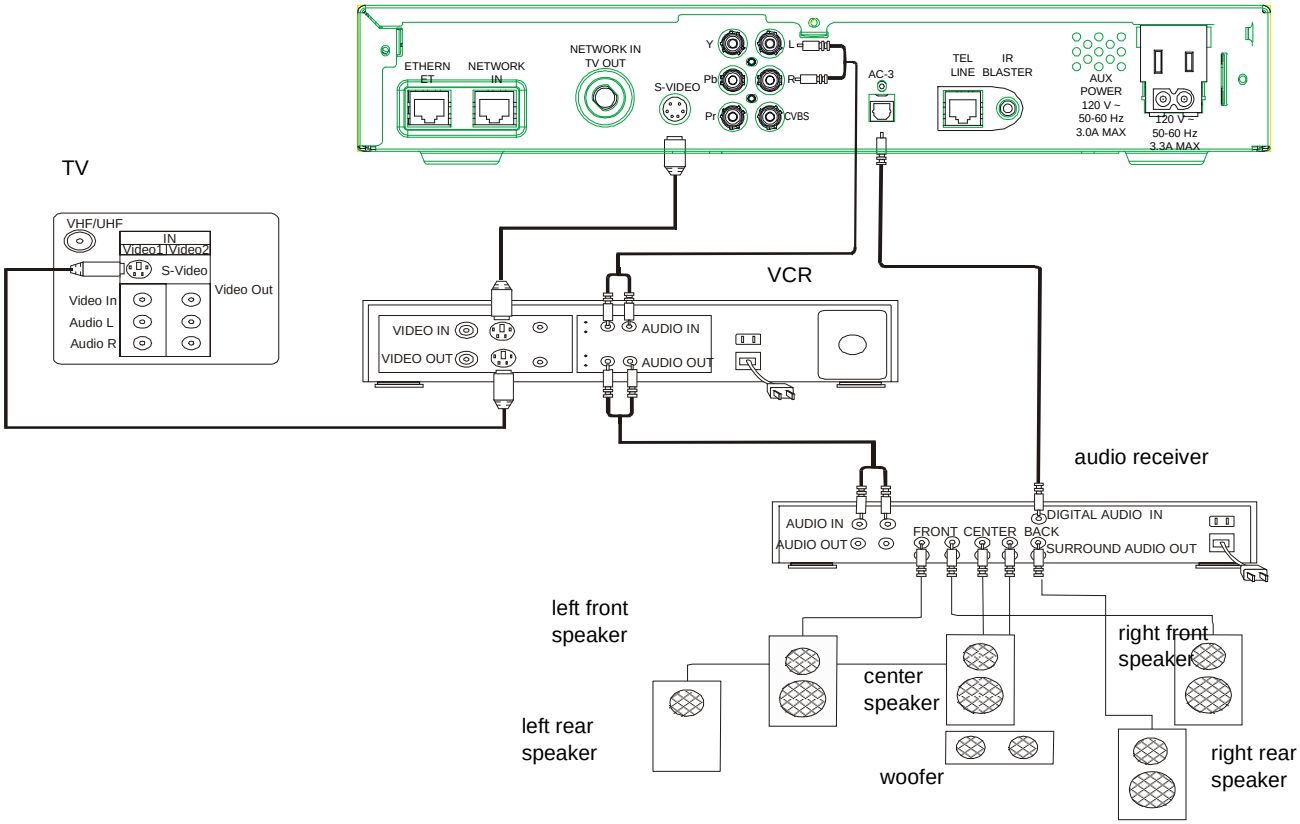
S-VIDEO/Digital Audio to audio receiver and TV



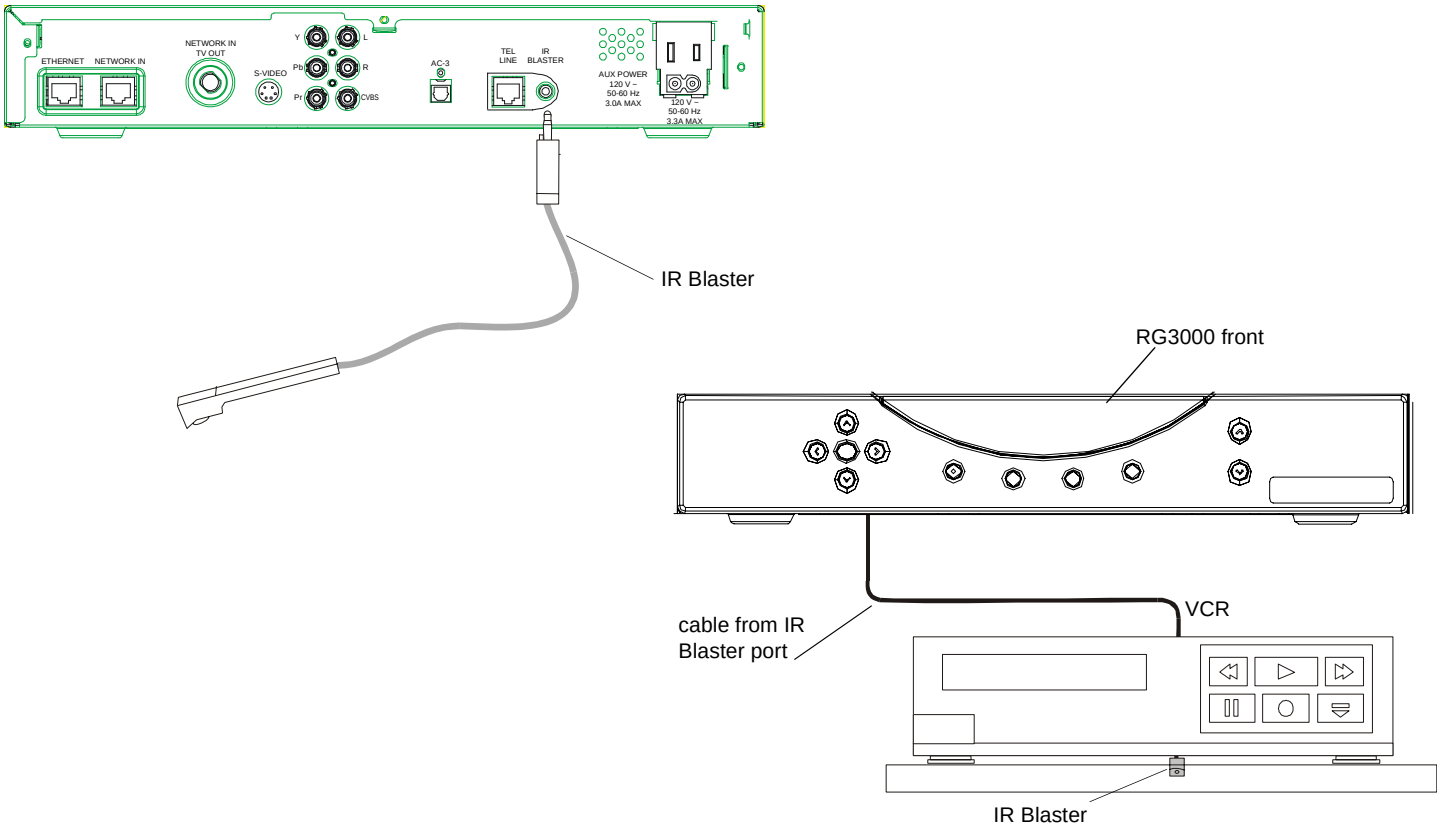
Basic home entertainment center



Advanced home entertainment center with Surround Sound (with Dolby Digital 5.1 capability)



IR Blaster connection and positioning



TROUBLESHOOTING

POSSIBLE CAUSES AND SOLUTIONS

This section describes what to do if your system is not working correctly. Study the following tables to find possible causes and solutions to the problem.

Problem	Possible Cause	Try This
Remote doesn't work	Dead batteries.	Change the batteries in your remote according to the instructions on page 11.
	Obstruction between the remote and the RG3000 or IR Transmitter.	Make sure that nothing is on or blocking a clear line of sight between the RG3000 and the remote.
Remote will not accept programming changes	Weak batteries.	Replace batteries and reprogram.
Remote, in IR mode, will not operate	Weak or dead batteries.	Replace batteries.
	Obstruction between the remote and the TV.	Make sure that nothing is on or blocking a clear line of sight between the TV and the remote.
No sound	MUTE is pressed on the remote control.	Press MUTE on the remote to restore volume level.
	TV code not programmed.	Refer to "Programming the TV Code" on page 20.
No picture	TV or RG3000 may not be activated.	Refer to "Getting Started" on page 9.
	Cable signal may not be reaching your home.	Make sure all cables are connected properly and that your TV is tuned to the correct RF channel. If the baseband video output on the RG3000 is connected to the VIDEO IN input on the TV, make sure the TV is set to the correct video input.
	VCR may be set incorrectly.	Check to see how the VCR is connected to the RG3000. If the baseband video output on the RG3000 is connected to the VCR, the VCR must be ON and programmed to VIDEO IN. Make sure VCR/TV is set to TV. Make sure the TV is set to the correct TV or video input.
No picture	Your RG3000 has recently received a software download. Sometimes after a download the system fails to operate. You may need to restart your RG3000.	To restart your RG3000, press and hold down the power button on the front panel for 5 seconds.
Picture is distorted	Coaxial cable is disconnected or loose.	Reconnect or tighten the cable.
Blue or black TV screen	No video supplied to TV.	If VCR is connected using RCA jacks, VCR must be ON to provide picture.
Snowy picture on all TVs	VCR is on at this location and TV is on wrong channel.	Call your NSP to reset your RF channel.
	TV is on wrong channel for Source.	Call your NSP to reset your RF channel.
Only one stereo speaker has sound	Audio connections are loose.	Reconnect audio connections. Check to make sure that no wires are frayed and no plugs are bent or broken.
No power	Power cord is disconnected.	Check to make sure that the RG3000 is plugged into a live electrical outlet. Note: If the outlet is controlled by a wall switch, make sure the switch is on.

Problem	Possible Cause	Try This
VCR will not record	VCR is on wrong channel.	See “Changing Channels” on page 12.
	VCR is programmed incorrectly.	Refer to the VCR User’s Manual.
	VCR is not connected properly.	See “Connections” on page 30.
	VCR is connected with RCA jacks and is not in correct mode.	Place the VCR on the LINE input. This can be accomplished using the VCR menu or changing the VCR channel until the display on the VCR indicates LINE.
	Safety tab on tape is broken.	Use a new tape.
VCR will not play tapes	TV on wrong channel for playback or not using the correct input.	Tune TV to correct RF channel.
	VCR is not connected properly.	See “Connections” on page 30.
Amber Network LED	The Gateway is not ready for use.	Unplug power connection on back of Gateway then reconnect if light stays on more than 10 minutes.

Contacting Your Network Service Provider for Help

If you are unable to fix the problem yourself, contact your NSP for assistance. Depending on the problem you are having, your NSP may ask for your RG3000’s model number. To find out what the model number is:

- Press the MENU button on the front panel of the RG3000. The GATEWAY menu appears.
- Select Remote Control Setup. The model number appears in the upper right-hand corner of the screen. For example, RG2BV30000.

Be sure that the remote control you are using came with your RG3000. Using more than one type of remote with the RG3000 does not work. Your NSP equips you with a remote control. For information about setting up and programming your system using the RG3000 remote control as well as setting up features such as Emergency Alert Services and Caller ID, see the second section of this manual, see “Advanced Use” on page 17.

TV AND VCR CODES

TV CODES - SRC 300

This section lists TV models that are compatible with the SRC-300A. If you do not find the TV code you need in the list, call your NSP.

TV and Codes
AOC: 005, 006, 019, 024, 032, 120, 140
Admiral: 003, 018, 041, 087, 125, 129, 187, 194, 210
Aiko: 024
Aiwa: 194, 251
Akai: 000, 005, 006, 032, 070, 072, 075, 107, 108, 120, 135, 139, 149
Alaron: 187
Amark: 032, 098, 120, 224
Amstrad: 033
Anam: 005, 009, 021, 032, 041, 120, 121, 183
Anam-National: 211
Archer: 032, 120
Audiovox: 024, 032, 041, 120, 130
Audio Dynamics: 238
BPL: 144
Bell & Howell: 018, 194
Broksonic: 005, 010, 027, 174, 176, 225, 226, 245
CXC: 041
Candle: 005, 006, 022, 025
Capehart: 019
Carver: 010, 027
Centurion: 005, 006, 194
Citizen: 005, 006, 010, 016, 018, 022, 024, 025, 027, 098, 202, 224
Concerto: 005, 010, 027
Contec: 017, 041, 054, 181, 185, 227
Corando: 098, 224
Coronado: 098, 224
Craig: 021, 041
Crown: 041, 098, 224
Curtis-Mathes: 005, 006, 010, 016, 018, 027, 059, 098, 125, 131, 194, 202, 210, 224, 231, 251

TV and Codes
Daewoo: 005, 010, 024, 027, 029, 030, 032, 098, 120, 130, 214, 215, 224, 247, 250, 252
Daytron: 006, 024, 098, 194, 224
DBX: 238
Denon: 052
Dimensia: 125
Dixi: 010, 027, 032, 120
Dumont: 001
Electrohome: 072, 098, 149, 224, 240
Emerson: 005, 017, 033, 035, 037, 038, 039, 041, 054, 098, 130, 132, 141, 143, 176, 181, 185, 187, 194, 203, 222, 223, 224, 225, 226, 227, 251, 252, 253
Envision: 006
Fisher: 042, 099, 194, 217
Fujitsu: 187
Funai: 024, 041, 132, 187, 251
Futuretech: 041
GE: 003, 005, 008, 009, 043, 087, 125, 130, 143, 147, 165, 182, 183, 206, 210, 211, 228, 231, 233, 248
Goldstar: 005, 006, 010, 027, 045, 098, 168, 194, 223, 224, 230, 238
Gradiente: 057, 060
Granada: 010, 027
Hallmark: 005
Harman Kardon: 238
Hinari: 010, 027, 187
Hitachi: 005, 017, 018, 024, 048, 049, 050, 051, 052, 053, 054, 055, 098, 116, 126, 142, 160, 185, 224, 231, 251
Infinity: 010, 027
JBL: 010, 027
JC Penney: 003, 005, 006, 014, 016, 043, 072, 087, 096, 098, 125, 131, 149, 165, 194, 202, 206, 210, 223, 224, 231, 238, 242
JVC: 057, 059, 060, 234, 235, 238
Jensen: 056
KEC: 041
KMC: 098, 224
KTV: 005, 006, 039, 041, 098, 224

TV and Codes
Kawasho: 061
Kenwood: 006, 235, 251
Kloss: 022, 110, 175
Konka: 236
LXI: 003, 005, 010, 027, 087, 125, 129, 131, 132, 194, 223, 251
Lloytron: 098, 224
Lodgenet: 018
Loewe: 010, 027
Logik: 018
Luxman: 005
MGA: 005, 006, 071, 072, 149, 187, 194, 240
MTC: 005, 006, 010, 016, 024, 027, 202, 251
Magnasonic: 010, 024, 027, 129, 131, 187
Magnavox: 000, 005, 006, 008, 010, 017, 024, 025, 027, 054, 067, 068, 098, 110, 132, 154, 167, 175, 187, 194, 216, 224, 231, 237, 251, 254
Majestic: 018
Marantz: 005, 006, 010, 027, 068, 072, 149, 237, 238
Marta: 223
Matsui: 010, 027, 032, 109, 120
Memorex: 005, 018, 032, 072, 120, 149, 187, 194, 219, 223, 242, 244, 248, 251
Midland: 001, 003, 087, 165
Mitsubishi: 005, 006, 017, 054, 070, 071, 072, 123, 129, 149, 187, 194, 239, 240
Multitech: 041, 251
NAD: 002, 005, 131, 166
NEC: 005, 006, 007, 183, 191, 194
National: 008, 010, 011, 012, 027, 146, 190, 211
Nikkai: 010, 027, 113, 131
Onwa: 041
Optimus: 012, 166, 194, 242
Optonica: 129
Orion: 010, 027, 037, 176, 212, 225, 226
Osume: 017, 054

TV and Codes
Panasonic: 008, 009, 010, 011, 012, 127, 148, 165, 177, 183, 211, 218, 231, 241, 242
Philco: 005, 006, 010, 024, 025, 027, 052, 067, 068, 072, 098, 110, 149, 175, 176, 183, 216, 224, 237, 251
Philips: 005, 006, 010, 025, 027, 068, 098, 136, 137, 138, 150, 220, 216, 223, 224, 237, 251
Pioneer: 002, 008, 048, 051, 076, 131, 166, 235
Portland: 005, 024, 098, 224
Proscan: 005, 125, 147, 152, 210, 233
Proton: 005, 006, 013, 019, 098, 224
Pulsar: 001, 024, 248
Quasar: 008, 009, 012, 165, 183, 211, 231, 242
RCA: 003, 005, 008, 014, 048, 063, 072, 078, 079, 080, 082, 084, 085, 086, 087, 125, 130, 147, 149, 160, 182, 183, 210, 231, 233, 251, 254
Radio Shack: 003, 005, 041, 072, 087, 098, 141, 149, 194, 224, 230, 242, 251
Realistic: 005, 006, 035, 041, 098, 141, 194, 222, 223, 224, 251
Runco: 001, 006, 243
SAA: 145
SSS: 005, 041
Saba: 051, 116, 142
Saisho: 032, 033, 109, 120
Sampo: 006, 019, 156, 194
Samsung: 005, 006, 010, 016, 027, 032, 098, 120, 155, 157, 167, 194, 202, 219, 221, 224, 229, 244, 246, 247
Sansui: 176, 225, 235, 251
Sanyo: 042, 089, 092, 109, 184, 194, 217, 219, 244
Scott: 005, 006, 037, 041, 093, 098, 187, 194, 224, 247
Sears: 003, 005, 010, 016, 027, 042, 087, 096, 098, 099, 101, 102, 104, 125, 131, 132, 184, 187, 194, 202, 217, 223, 224, 251
Sharp: 017, 054, 098, 129, 141, 200, 224, 254
Signature: 010, 018, 027, 251
Sony: 000, 109, 180, 189, 232
Soundesign: 005, 025, 041, 187, 251
Spectricon: 032, 120
Starlite: 041

TV and Codes
Supra: 005, 022
Sylvania: 005, 006, 010, 024, 025, 027, 068, 098, 110, 132, 175, 194, 224, 237, 240, 251
Symphonic: 132, 179, 251
TIVO: 136, 137, 138
TMK: 005
Tandy: 098, 113, 129, 224, 251
Tatung: 009, 010, 027, 183, 211
Teac: 251
Technics: 008, 012, 165, 242
Techwood: 005, 165
Teknika: 005, 010, 016, 018, 022, 024, 025, 027, 041, 072, 098, 114, 149, 187, 202, 223, 224, 251
Telerent: 018, 098, 224
Teletech: 032, 120
Thomson: 051, 116, 142
Toshiba: 016, 017, 054, 096, 131, 194, 202, 240, 245, 247
Totevision: 098, 223, 224
Universal: 043, 206
Vector Research: 006, 238
Victor: 057, 060, 235
Video Concepts: 070, 238, 251
Vidtech: 005
Viking: 022
Wards: 000, 005, 006, 010, 018, 027, 043, 067, 068, 125, 141, 182, 187, 194, 206, 224, 251
Westinghouse: 037, 041, 130, 176, 194
Yamaha: 005, 006, 238, 251
Yorx: 006, 194
Zenith: 001, 018, 024, 178, 223, 225, 235, 248, 249, 251
Zonda: 032, 120

VCR CODES

This table lists the VCR models and code numbers that are compatible with the IR Transmitter. If you do not find the code you need in the list shown, call your NSP. Not all NSPs support use of the IR Blaster. These codes are exclusively for use with RGs equipped with an IR Transmitter.

VCR and Codes
Admiral: 048, 209
Adventura: 000
Aiko: 278
Aiwa: 307, 000, 037
Akai: 106, 053, 041, 061
America Action: 278
American High: 035
Asha: 240
Audiovox: 037
Beaumark: 240
Bell & Howell: 104
Broksonic: 121, 184, 002, 209, 211, 479
CCE: 072, 278
Calix: 037
Canon: 035
Capehart: 020
Carver: 081
Cineral: 278
Citizen: 278, 037
Colt: 072
Craig: 037, 072, 047, 240, 271
Curtis Mathes: 035, 041, 060, 162
Cybernex: 051, 240
Daewoo: 278, 561, 020, 045
Daytron: 020
Denon: 042
Dynatech: 000
Electrohome: 037
Electrophonic: 037
Emerex: 032
Emerson: 184, 002, 209, 278, 036, 121, 211, 208, 479, 561, 061, 088, 212, 000, 037, 043, 068
Fisher: 047, 104, 054, 066
Fuji: 033, 035

VCR and Codes
Funai: 000
GE: 035, 060, 048, 202, 240
Garrard: 000
Go Video: 432, 526, 232
GoldStar: 037, 038
Gradiente: 008, 000
Grundig: 195
Harley Davidson: 000
Harman/Kardon: 038, 081
Harwood: 068, 072
Headquarter: 046
Hitachi: 042, 105, 000, 041
HI-Q: 047
Hughes Network Systems: 042
JVC: 067, 008, 041
Jensen: 041
KEC: 037, 278
KLH: 072
Kenwood: 041, 067, 038
Kodak: 035, 037
LXI: 037
Lloyd's 000, 208
Logik: 072
MEI: 035
MGA: 043, 061, 240
MGN Technology: 240
MTC: 000, 240
Magnasonic: 278
Magnavox: 035, 081, 000, 039, 149
Magnin: 240
Marantz: 081, 035
Marta: 037
Matsushita: 035, 162
Memorex: 104, 047, 000, 037, 048, 035, 046, 240, 307, 039, 209, 162
Minolta: 105, 042
Mitsubishi: 043, 173, 061, 048, 067
Motorola: 035, 048
Multitech: 000, 072
NAD: 058
NEC: 038, 040, 041, 067, 104
Nikko: 037
Nikon: 034

VCR and Codes
Noblex: 240
Olympus: 035
Optimus: 162, 048, 058, 037, 104, 432
Optonica: 062
Orion: 479, 002, 184, 209
Panasonic: 035, 162, 077, 225, 616
Penney: 035, 240, 037, 042, 038, 040, 054
Pentax: 042, 105
Philco: 035, 209, 479
Philips: 081, 035, 062
Pilot: 037
Pioneer: 058, 067
Portland: 020
Profitronic: 240
Proscan: 060, 202
Protec: 072
Pulsar: 039, 051
Quarter: 046
Quartz: 046
Quasar: 035, 162, 077
RCA: 060, 149, 202, 042, 105, 035, 048, 077, 106, 240
Radio Shack: 000
Radix: 037
Randex: 037
Realistic: 000, 104, 047, 048, 037, 035, 062, 046, 066
Ricoh: 034
Runco: 039
STS: 042
Samsung: 045, 051, 053, 240
Sanky: 039, 048
Sansui: 041, 479, 000, 067, 209, 271
Sanyo: 047, 046, 104, 240
Scott: 184, 211, 121, 043, 045, 210, 212
Sears: 054, 105, 037, 042, 000, 035, 046, 047, 066, 104
Semp: 045
Sharp: 048, 062
Shintom: 072
Shogun: 051, 240
Singer: 072
Sony: 033, 034, 032, 000, 035
Sylvania: 035, 081, 000, 043

VCR and Codes
Symphonic: 000
TMK: 036, 208, 240
Tatung: 041
Teac: 000, 041
Technics: 035, 162
Teknika: 000, 035, 037
Thomas: 000
Toshiba: 045, 210, 212, 043, 066, 366
Totevision: 037, 240
Unitech: 240
Vector: 045
Vector Research: 038, 040
Video Concepts: 040, 045, 061
Videosonic: 240
Wards: 035, 060, 062, 000, 047, 212, 240, 042, 048, 072, 081, 149
White Westinghouse: 278, 209
XR-1000: 072, 000, 035
Yamaha: 038
Zenith: 039, 000, 033, 034, 209, 479

Note: The IR Transmitter is not compatible with:

- Samsun VCR/TV model number CDX1342
- Philips VCR model number VRX364AT

SPECIFICATIONS

Cabling Requirements

Input/Output	Cable (connector)
ETHERNET[a]	RJ-45, female
NETWORK IN	RJ-45, female
NETWORK IN/TV OUT	F-type coaxial, female
S-VIDEO	S-Video circular 4-position Mini-DIN, female
Audio/Video: • Y (green) • Pb (blue) & • Pr (red) • AUDIO R (red) • AUDIO L (white) • CVBS (yellow) (composite video)	RCA, female
AC-3 (black)	RJ-45 female optical
TEL LINE[b]	RJ-11 jack, female/male
IR Blaster	3.5 mm phone jack, female
AC IN	1 polarized, 2-prong plug
AC outlet	2-prong

a. This port is disabled on model RG3000.
b. Not available on the RG300V.

Power Requirements

Condition	Power Consumption (watts)
normal operation	<30 watts, 105-125VAC 60Hz

Environmental

Operating Temperature Range	Storage Temperature Range	Humidity Range (non-condensing)
0 to 40°C	-40°C to + 80°C	5% to 95%

Dimensions and weight

Dimensions (L x W x H)	10.125 in. (25.73cm) x 14.75 in. (37.46cm) x 2.75 in. (6.95 cm)
Weight	5.27 lbs (2.39 kilograms)

CERTIFICATIONS

- GR-1089-CORE
- FCC Title 47 Part 15, Class B
- UL 60950-1

- CSA C22.2 No. 60950-1-03
- CE
- ASTM D (mechanical shock and vibration standards)

FCC Statement of Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTICE This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the antenna.
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

INDEX

A
about this manual 7
Advanced Use 17
Aspect Ratio 25

B
batteries
  remote control 13
buttons
  remote control 11
  RG3000 9
  RG3000, front panel 9, 10

C
cable requirements 43
Certifications 43
changing channels 12
  using the remote control 12
  using the RG3000 buttons 12
channel list
  select 12
channel order
  favorite 12
  setting up 12
Closed Caption display options 26
closed captioning 15
codes
  TV (SRC-300A) 39–40
  VCR 41–42
Controlling TV Volume 12

D
dimensions 43
Display Language 24
  changing 24
down key, about 10

E
Emergency Alert Device Support 24–25
entertainment center 35
  advanced, illustrated 35
  basic, illustrated 34

F
FCC statement of compliance 44
front panel
  buttons 10

G
Gateway ID 19
  determining 18–19
  setting 17, 19, 21
Gateway Menu, illustrated 18, 22
Getting Started 9

H
HD output override 26
HD output resolution 26

I
IDs
  Gateway, determining 18–19
Important Safeguards 5
Introduction 7
IR, about 11

L
language alternatives 23–24

M
message waiting 13
mute TV volume 12

N
Network Access Provider
  finding 38
Network Service Provider
  Services 8

O
Override 4
  3, HD 26

P
Parental Control 14
parental locks 14
pay-per-view
  using 14
plugging in devices 29
power requirements 43
preface 5

R
recording your favorite programs 15
remote control 11
  buttons (SRC-300A) 11
  buttons, described 11
  using 11
remote control ID
  setting 20
remote control ID form 8
Remote Control ID menu, illustrated 19
Remote Control Setup menu, illustrated 19
replacing remote control batteries 13
Resolution, HD 26
RF channels, about 8
RF settings 23
RF settings, verifying 22–23
RG3000
  using 9

RG3000 buttons, illustrated 9
RG3000 front panel
  Channel Down key, about 10
  Channel Up key, about 10
  Clock Display, about 10
  Cursor buttons, about 9
  Guide button, about 10
  Info button, about 10
  Menu button, about 10
  Message LED, about 10
  On LED, about 10
  Power button, about 10
  Power LED, about 10
  Remote LED, about 10
  Select button, about 9

S

Safety 6
  advisories and labels 6
  repairs 6
secondary audio 23
settings
  changing 17
  programming 17
Setup Menu, illustrated 23
Setup TV menu 22
Specifications 43
SRC-300A remote control
  TV codes, list 39–40
Surround Sound, wiring illustrated 35

T

temperature
  operating range 43
troubleshooting 37–38
  blue or black screen 37
  no picture 37
  no power 37
  no sound 37
  picture distortion 37
  remote control won’t change channels 37
  replacing remote control batteries 13
  snowy picture 37
  VCR will not play tapes 38
  VCR will not record 38
TV codes
  obtaining, using the code search method 21
  programming 20
  SRC-300A, list 39–40
TV Setup Menu, illustrated 22
TV volume
  controlling 12
TV/VCR/Audio Connections 30–35
TVs
  closed captioning 15
  programming 22

U

unmute TV volume 12
unplugging devices 29

V

VCR codes 41–42
  programming 16
VCR, plugging into 29
VCR, using the RG3000 to start 15
video recording 15

W

wiring
  advanced home entertainment center with Surround Sound 35
  basic home entertainment center 34
  composite video with AUDIO-L/AUDIO-R and TV 32
  HDTV 30
  S-VIDEO and AUDIO-L/AUDIO-R to audio receiver and TV 33
  S-VIDEO/AUDIO-L/AUDIO-R to TV 31
  TV OUT to TV 30
  TV OUT to VCR/TV 32
  VIDEO/AUDIO-L/AUDIO-R to TV 31